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ART. I.—DIATHESIS IN ITS RELATIONS TO EPIDEMIC DISEASES.

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WHILE I most earnestly desire to avoid the frivolity of mere medical guess-work, I shall stand unpledged to a strict observance of the rigid but sound and rational Baconian formula as promulgated by Dr. BARTLETT in his philosophy of medical science—"the classification and arrangement of (observed) phenomena and their relationship"—constitutes the fundamental rule in this system, while the Doctor strenuously repudiates every method of scientific inquiry not strictly founded upon observation and experience, or in conformity with the above proposition. Certainly the most if not the only trustworthy line of investigation to be pursued in prosecuting a scientific inquiry is, from "the better to the less known," but unquestionably many of the facts, phenomena and events, constituting materials for the construction of every absolute science, have been wrought from the hidden ore by a less exact process. Hypothesis, speculation, and mere theorizing have, by their direct exercise, resulted in the establishment of no ultimate medical doctrine, yet they serve as valuable suggestive aids in conducting the inquirer onward. And while a large proportion of the laborers in this field are loudly proclaiming the

absurdity of medical progress independent of actual observation, they still persist in conjecturing and speculating, and often, as I verily believe, to the advancement of medical truth.

When from an ascertained fact we make a deduction, we have not a second fact till the correctness of our deduction has been verified by experience—we then have a second datum as sound as the original. Suppose we have not a first fact, may we not substitute hypothesis as a basis of deduction, and in like manner subject this deduction to the test of experience? The discovery of this fact is certainly not due to observation alone—this has only confirmed the correctness of that which was brought to view by another process.

Although this article may savor somewhat of speculation, I trust I shall be able to indicate, if not substantiate, some facts which may prove of future value to medical art and science.

As the terms 'epidemic' and 'diathesis' have not uniformly been employed without some degree of vagueness, I may as well, in the first place, designate the conditions which are to be implied by their applications as related to the subject of this paper. In its largest signification I would characterize an "epidemic as such a disease as prevails at certain periods in a marked degree, and is at other periods as markedly absent." But for my present purpose this needs some qualifying explanation. There is a class of zymotics for the production of which there must be a specific internal condition, as well as a specific external condition, and the internal condition exists independently of exterior abnormal circumstances; the action of an external material upon the internal element developes a given process which rids the subject of his former susceptibility, or confers permanent immunity from the self-same disease. This is a class of epidemics to which the views advocated in this paper have no reference. It treats of epidemics that acquire their non-specific internal condition in consequence of the operation of exterior agencies, and which, after the explosion that ensues upon the application of a specific external material, confer but an indefinite immunity upon their subjects.

By way of conveying as clearly and as comprehensively as may be the idea which I shall attach to 'diathesis,' and the relations it has to other actions and conditions, I will attempt to define

it by constructing a sort of diagram or formula of propositions: A represents the primary and general vitiating agents; B the healthy human organism; C the primary abnormal state; D the special or specific material; E the individualized epidemic specimen. A, by its action upon B, converts the true norma of B into a state of abnormity, C; while D, by affecting certain relations with C, gives rise to the existence of E.

Now I propose to discuss what I have chosen to denominate the epidemic diathesis, in its relations to the etiology and pathology of epidemic cholera, with such observations relative to dysentery and its congener, typhoid fever, as may serve the purposes of illustration.

It is most obvious if an inquiry of this character is to be prosecuted with any degree of probability that useful results will be attained, that we must endeavor to comprehend, first, the nature of those primary instrumentalities from which given sequences flow; the conditions, special and general, under which such instrumentalities develope such given consequences, both as to the object in operation and the subject operated upon, and also the exact results to which these movements have given rise collectively.

In every instance where the system is brought under the dominion of a morbid diathesis, there is a juncture of time which precisely corresponds to the earliest abnormal impulse excited in the human organism, there is a period which accurately dates the first interference that is had with the true norma of the constitution, and there are special and general agencies which operate, in individual instances, under given conditions to produce these primary impressions. And unless we can gain some real knowledge of the true nature and producing causes of the diathesis, under which epidemic maladies are engendered, we can only learn that which accidental and empirical observation discloses.

In a recent number of the New York Journal of Medicine Prof. Knapp, of Covington, Ky., has published some very interesting observations upon the cause, nature, cure, and prevention of epidemic cholera, in which, he undertakes to establish, that this disease is a correlative of scorbutus. The grounds upon which he bases his arguments in support of his peculiar views, will constitute one branch of the subject of this essay. In this

exposition of Dr. KNAPP's views, in reference to a subject of such incomparable moment, there is matter, as I conceive, worthy of most serious and deliberate consideration.

The subject of epidemic etiology has, through all time, been involved in most profound mystery. We lived through a past season without experiencing even an epidemic panic—the following season brings with it no appreciable meteorological dissimilarity, the circumstances in which we exist are in no notable degree altered—yet, epidemic cholera, dysentery, or its legitimate ally, typhoid fever, decimates, aye, dimidiates a community in some instances. These events are the results of laws, and it may be that those laws are of uniform operation, yet so multiform, diverse, and hidden are the elements which enter into their constitution, and under so many apparently conflicting conditions do these elements conspire to produce ultimate results, that the most enlightened research has hitherto failed to remove the veil of obscurity which surrounds the origin of epidemic and endemic diseases. Nevertheless, I venture to assume two propositions—first, that the existence of an epidemic diathesis is an invariable and essential condition to the final developmental process; and secondly, that this is a generic condition. In the next place we inquire as to the causes from which this condition may arise. Telluric and meteorological agencies on the one hand, and dietary on the other, by their conjoint and under their variously-modified aspersions are, as I conceive, fully adequate to the entire process of developing it—more than adequate but for the corrective influence being constantly displayed by a modified form of electricity. M. SCHOENBEIN, whose valuable labors have resulted in the discovery of an agent which he denominates *ozone* has, if his conclusions be correct, accomplished an important step towards a scientific elucidation of this subject.

According to Mr. FARADAY, this extraordinary element which he regards as an allotropic condition of oxygen, but which its discoverer regards as an independent body or condition of matter, forms by weight one-fifth of the atmosphere, and is probably the most powerful oxydizing agent in nature. Cosmic changes, in constant process around us, during the hot vegetating season, would speedily deteriorate the atmosphere to a degree incompati-

ble with health, if not life, but for this depurating agent. I will give an abstract of SCHOENBEIN's conclusions upon one or two points: "The abundant source of gaseous matters is that which the decomposition of vegetable and animal substances affords. Some of these are well known, such as carbonic acid and ammonia; others are of unknown chemical nature, and though the absolute quantity of such deleterious matters may be small in comparison with the immense volume of the atmosphere, their accumulation would render the air unfit for the support of animal life, unless some agent were at work to neutralize or decompose them. For this task ozone is peculiarly fitted by its high oxydizing powers. The purifying influence of thunder-storms upon the atmosphere, is due to the generation of this agent." Thus, while there is an essential necessity connected with the revolutions of generation, growth, and decay, constantly going forward in nature's laboratory, for the evolution of elements most detrimental to our well-being, the great Author has not failed to provide an antidote, with powers commensurate with the magnitude of the evils, which it is its office to counteract. Palludal emanations and effluvia arising from the decomposition of animal substances doubtless constitute by far the most important sources of atmospherical pollution, but it is equally certain that meteorological changes contribute materially to affect its healthful or noxious conditions.

It needs no arguments to establish that these matters exert a most powerful vitiating influence upon the human constitution, I will therefore pass on to a consideration of diet in its causative relations to the epidemic diathesis. If, in pursuing the topics involved in this branch of the inquiry, I shall seem to encroach upon the peculiar domain of Prof. KNAPP, such concurrence of opinion, upon my part, will be received as only corroborative of views already promulgated by him.

So far as concerns the induction of this diathesis, I am not indoctrinated into the Doctor's faith, but in respect to its identity with or very near kindredship to the scorbutic disposition, I entertain but little doubt. I hold that diet only exercises an instrumentality in common with such other agencies as I have and will notice. I am disinclined to believe that any practitioner who has exercised that degree of clinical scrutiny which it behooves every

judicious observer to practice, could have failed to detect, in very many instances of cholera, dysentery, and kindred epidemics, in their earlier stages, unmistakable evidences of the scorbutic taint. Although it is but recently that my attention has specially rested upon this feature of these cases, yet, by recurring to the history of many cases, belonging to the family of epidemics alluded to, which have passed under my observation during a period of ten years, I am wholly satisfied that the circumstance is not new, and I am equally satisfied that each consecutive year, during that interval, has stamped the impression more deeply.

The interior of the mouth is the chief seat of these indicative appearances; swollen, spongy, and livid gums, fetid breath, etc., are the indications present as the diathesis becomes confirmed, and during the early stage of the case, purpureous spots or eczemas, and depraved ulcerations as the cases become more advanced.

As to the relations which may subsist between these phenomena and scurvy, and as to the influence which diet may exert in their production, are inquiries of prime interest just now, and such, too, as in reference to which pathologists are likely to hold widely variant opinions.

By a sort of general consent the medical mind of this country seems to have become possessed of an opinion that the scorbutic reign is completely passed, and this is doubtless very true as respects marked cases of scurvy, but as a complication or underlayer of our more malignant epidemics, although a foreigner it still reigns even in this country as well as in its original native land.

Notwithstanding the profession seems thus, in a great degree, to have lost sight of the disease as a subject of separate investigation, yet from European and American medical periodical literature, extending over a period of five years, I could glean quite a mass of observation having an important incidental bearing in confirmation of the doctrines I hold upon this subject. But as I am not disposed to occupy space with extracts, I will merely condense some of the leading views entertained by Dr. BARNES, of the London Hospital, concerning the relations of the condition in question to other morbid conditions. The Doctor deposes very strongly.

He concludes that marked cases of scurvy are not, perhaps, numerous in London, but minor degrees of the scorbutic disposition may be detected on careful inquiry and observation. Patients so affected present themselves at the hospitals complaining of various ailments, etc.—the scorbutic taint being masked by the more prominent disease. Dr. BARNES regards it as certain that if these more prominent diseases have not in all cases arisen as secondary affections upon the scorbutic degredation of the blood, yet that their nature and cause are so modified by this complication that it is necessary to take the scorbutic taint into consideration in prescribing the treatment.

He further states, and still more in point: It is well known that the deaths of thousands of soldiers, registered as owing to variously-named diseases, are in reality to be ascribed, if we ascend to the primary pathological conditions, rather to scurvy—a condition upon which the final and immediately fatal diseases are but epiphenomena. It is obvious enough that Dr. BARNES is smartly imbued with the scorbutic doctrine, and I could introduce numerous other equally respectable witnesses to the same end.

Our advances toward a trustworthy pathological diagnosis, are often materially promoted by attending to the peculiar action of remedial substances, and in reference to no morbid condition, is this, perhaps, more strikingly exemplified than is the case in respect to scorbutus. If we admit evidence upon the principle that under like conditions similar agencies develope identical results, I shall address myself to the task of establishing the proposition not without some encouragement. That the blood has become altered in respect to the normal relations of its primary elements to constitute the scorbutic diathesis, is a proposition too well established to admit of controversy, and that certain alimentary compounds and chemical principles have an intimate relation to this fluid in its development, is also a well fortified proposition. The most potent of these substances, both as to prophylactic and remedial efficacy, are such as contain a large equivalent of acid—esculent vegetables and succulent fruits, contributing both in consequence of their acid constituents and nutritive principles to preserve the blood from scorbutic degradation.

Men of professional sagacity are beginning everywhere to dis-

cover the former error of prohibition in the use of fruits and vegetables, as dietetics in epidemic seasons, not only allowing such articles liberally but insisting upon the dangers of abstinence.

Dr. BARNES again says: "That the children at the well-known school at Tooling were mostly disposed to scurvy from bad diet before the cholera broke out among them."

Dr. BUDD, whose judgments are ever deliberate and sound, in concluding some clinical remarks in relation to a case of scurvy, thus indicates his opinions upon this topic: "This case shows very forcibly that total abstinence from vegetable food is very likely to give rise to scurvy, and may serve as a warning, should cholera unfortunately visit us again, to those who, from fear of the epidemic, carefully avoid fruits and vegetables. Exclusion is not the proper system to follow; moderate use of animal and vegetable food, open air, healthful labor and exercise, and the avoidance of any kind of excess, will be trustworthy prophylactics of both complaints."

Our best collective data are made up from individual experience, and we have the concurrent testimony of a sufficient number of individual members of the profession to the prophylactic and therapeutic value, under these tendencies of the system, of various vegetable and mineral acids to establish their claims upon a high basis. We have abundant medical record to the effect that the inhabitants of cider districts in various portions of Europe have enjoyed an almost entire immunity from cholera, otherwise no more blessed in point of hygienic protection than immediately neighboring communities, who have suffered most direful visitations. I presume the experience of almost every enterprising practitioner has tested the validity of the claims of the acid treatment in a certain class of epidemic cases. Citric acid, which, since the earliest records of medical experience, has enjoyed favor superior to almost any other substance in correcting scorbutic cachexy, I have used in the special class of epidemics under consideration with the most decided good results. Sulphuric and nitric acids—the latter being the great Austrian remedy in cholera—have become leading and standard remedies everywhere in treating such varieties of affection as are characterized by a bowel profluvium.

There is at this time prevailing in this portion of the country a very malignant type of dysentery characterized by adynamic fever, extreme impoverishment and depravity of circulation, etc., which I have, more recently, treated by literally 'acidulating' my patients and with evidences more conclusive of benefit than have resulted from any plan I have been able to devise.

My friend Dr. ROGERS, of this place, a man of mature experience, related to me, a few days since, a circumstance of singular significance, connected with an extreme case of typhoid fever which became the subject of his clinical care. The subject was a middle-aged, laborious agriculturist, and the disease had progressed to an extremity so critical that the Doctor despaired entirely of his patient's recovery. For several days his patient had most importunately teased him for permission to drink cider. This permission was persistently withheld till the case grew so hopeless that it was thought matters could be made no worse, and the cider was allowed to complete satiety. The sequel is that the sick man at once convalesced, and without any more physical favors from the Doctor, he speedily recovered his health entirely.

My particular friend and neighbor, Dr. TRABUE, informs me that during the prevalence of the present epidemic of dysentery, he has allowed such patients slightly acid cider *ad libitum*, with results so beneficial as to inspire him with great confidence in its value as a dysenteric remedy.

I could adduce facts of this character to any extent that the positions I have undertaken to vindicate might seem to need such corroboration, but I can feel no hesitancy in coming to the belief that no man of medical experience, who will subject his own observations to a critical analysis, can withhold his convictions aside from any force which may attach to the foregone facts and arguments.

I have thus far attempted to show that the existence of a diathesis is an essential condition to the ultimate disease—developing impulse; that this condition is generic; that vegetable and animal miasma, together with the hygrometic and thermtic state of the atmosphere, on the one hand, and unwholesome or deficient alimentary supplies on the other, are fully adequate to the induction of such a morbid proclivity in the constitution.

I will now offer some suggestions as to the derivation and causative relations of the specific element, in consequence of the action of which, in view of the above permissive state of the constitution, characteristic morbid expressions ensue. Whether the general causes which have been treated of as capable of abnormalizing the system into a diathesis, become, under any circumstances, sufficiently intensified to originate cholera independent of a self-generated medium, is a question which must be determined upon very nice data. From a limited individual experience and a tolerably extensive examination of recorded testimony bearing upon this point, I am decidedly favorable to such an idea, though by no means to the exclusion of the view that a specific product is the immediate agent.

And while I combat the idea that the disease is in strictness contagious, I hold it to be self-propagating and portable, but the portable material not at all times derived from the same source, generated from the same elements or by a like process. I think that we may confidently infer the existence of a specific product as the only *immediate* agent in the production of Asiatic cholera, and in seeking for the sources of this poison, and the agencies which conspire to effect its elaboration, we look to the matters eliminated from the human organism for the first, and solar and atmospherical influences as the second. We have every reason to conclude that a perfect coaptation of every circumstance essential to this result, is of very unfrequent occurrence and short duration, otherwise we should not witness that erratic course which uniformly characterizes the epidemic. The alvine excreta, after having been deposited (in the temples of Cloacina), being subjected to the influences, already alluded to, doubtless constitute a most prolific source of this specific material, although the bodies from which they may have been elimenated were in a normal state or afflicted with unlike maladies. But the prime source of the origin of this virus in its fatal abundance and most deadly concentration, is the chemical changes which occur in the true choleraic eliminations.

Certain conditions of the atmosphere, temperature, moisture, electricity, etc., may be present to day in most effective force for the chemical changes necessary for the evolution of this deadly

matter, but to-morrow the ozonometer changes, and pestilence ceases to "walk by night" till the original conditions for evil are restored. The greater the accumulation of such matters in a given area, as for instance populous cities, *cæteris paribus*, the more abundantly must the cholera virus be liberated.

A single case of cholera imported into a large city, the inhabitants of which are, in large proportions, already laboring under a well-established epidemic diathesis, may, in conformity with the above view, originate and propagate the epidemic in its most direful form, and yet display not a property of contagion. But if the inhabitants of such city had escaped the primary abnormalizing influences, and the coaptation of other named circumstances was wanting, the attempt to propagate and introduce cholera by such a means, would amount to sowing seed in dry ground; the disease would not linger one hour beyond the termination of its career in the solitary imported case. We hear much said about 'ochlitic miasm,' a disease—producing element, generated by crowding the sick together: this is doubtless a potent agent in developing cholera, but its origin is animal excretions and exhalations, and the identical conditions, of which I have been speaking, must conspire in its production and dissemination to endow it with *essential* specific properties. It is therefore the self-same agent to which I *invariably* ascribe the *immediate* development of the disease.

The contagion theory, for all that I know to the contrary, affords no satisfactory explanation of the propagation of cholera, while the above view approximates to an explanation of every difficulty that has presented itself to my mind.

The entire problem, in my view, resolves itself into this: Certain substances or particles of matter of animal origin mainly, if not exclusively, subjected to certain chemical laws (atmospherical media), develope given processes upon which is resultant a spe-specifically endowed poison.

Now as to the animalcular theory, the astral, and innumerable other fanciful and extrordinary theories, I hold them to be simply preposterous, and would willingly co-operate in repudiating the entire batch.

In a very brief manner I will offer what I conceive to be some rational pathological deductions.

Asiatic cholera is characterized by a group of phenomena which manifest themselves, usually, in very regular order. Passing by the period prior to its open manifestation, we have first flocculent rice water diarrhœa and vomiting, cyanosis and algidity, cramps, asphyxia and coma, suppressed functions, etc. The rationale of these phenomena has been attempted by very elaborate arguments based upon numerous and widely-antagonistic grounds. Some of these theories are most complex, while others are so simple as to "vitiate themselves by offering a too easy explanation of an intricate problem."

The neurotic theory, or the one referring the essential seat of cholera to the solar plexus and its appendages, or the sympathetic system of nerves is, just now, more than any other in vogue. The more important considerations insisted upon by the vindicators of this doctrine are these: "That neither the symptoms nor the postmortem evidences indicate the presence of any diseased organic action proceeding within any separate tissue or organ, and that the whole system becomes affected at about the same period." To my mind this is all susceptible of a more satisfactory solution, without disturbing the repose of the nervous system, for such an explanation as refers difficult problems to this system is, at best, but rendering the mysterious more mystic.

As to the toxical doctrine, which ascribes every pathological manifestation to the diffusion of a subtle poison, I have not, in the least, been impressed with its plausibility. I am a decided advocate for the poison (specific), and equally so for the doctrine which refers the essential seat of the disease to the blood. The blood being already imbued with certain affinities, the introduction of the true specific results in the separation of the aqueous and saline particles from the solid materials of the blood. This constitutes a primary and essential feature of the disease. The next movement is evacuation of these vascular contents by exosmosis into the intestinal tract. Whether the further evacuation of these sanguineous components from the bowel is accomplished or not, is immaterial as to the effects upon the general functions of the economy, the remaining circulatory medium has lost its physiological characteristics and ceases its physiological offices, and from this as a primary condition do all other and secondary con-

ditions arise. The blood thus altered in its hystological relations is not only deficient in capacity for vital stimulation and normal plasticity, but it has become mechanically and vitally disqualified for permeating those structures whose functional integrity and those tissues whose preservation and growth are due to its energizing presence. The vascular current, without the life-giving ministrations of which every organic force must cease, has become an inspissated, grumous, devitalized mass.

Under these circumstances should we be surprised that the functions of assimilation, nutrition, secretion, calorification, innervation, and finally, respiration, and the heart's action, are become suspended? More especially have we little reason to be astounded at the supervention of ganglionic paralysis, even a state of anesthesia, with a motionless mass of carbonized blood to subserve the wants of a constantly changing organism. It is not a subject for wonder either that algid cholera is a fatal disease—it is essentially so, to be otherwise we have the greatest cause for astonishment. Molecular death has already taken place, and but too surely and speedily must somatic death ensue. Every condition upon which the continuance of vitality depends has become undone.

Although I regard the separation of this train of extreme events as wholly impracticable, yet the thwarting of those agencies which, in the progress of their actions give rise to such events, I regard as clearly within the scope of successful medical interference.

The original diathesis is preventable upon the plain principles of medical hygiene, involving a rigid application of such rules as are deducible from the nature of causes and their effects. The special infection or cholera virus is derived from sources and engendered under conditions in reference to which we may attain to such knowledge as will enable us to solve the most important problem in the whole category. When the disease has assumed a manifest semiology, a timely application of our art, under a judicious eclecticism from its healing stores, will but rarely fail in staying progress prior to the attainment of that stage which is without hope.

In view of these facts, if they are accepted as such, it behooves every medical philanthropist to contribute his aid in giving the

fullest efficiency to such sanitary efforts as are most likely to dissipate the earlier as well as the more immediate causes of this direful malady, and if such efforts fail in their prophylactic ends, the most prompt, decided, and efficient instrumentalities of arrestment must be employed as the *ultima thule* of our hopes.

ART. II.—PROCEEDINGS OF THE LOUISVILLE MEDICAL CLUB.

REPORTED BY JOHN BARTLETT, M. D., SECRETARY.

THE Louisville Medical Club met at the house of Dr. Bemiss on Tuesday evening, September 4th. President Ewing in the chair, and the following gentlemen present: Drs. Gross, Knight, Bemiss, Wible, Palmer, Rogers, Raphael, D. W. Yandell, Hardin, Bartlett, and Thompson.

Dr. Taylor, of Caseyville, Ky., was introduced to the Club by Dr. D. W. Yandell.

The paper of the evening was read by Dr. Knight on the

USE AND EFFECTS OF CHLOROFORM IN LABOR.

Gentlemen of the Louisville Medical Club:—I am aware that there exists at the present time a great diversity of opinion among medical men as to the propriety of the use of chloroform in obstetrical practice, and while many of the most distinguished names of the profession warmly advocate its use, others equally distinguished, and probably as numerous, use it either with extreme caution or condemn it altogether.

I shall endeavor in the few remarks that I propose making, to confine myself to a plain and simple statement of the facts as they have presented themselves to me relative to the use and effects of chloroform in parturition.

It is almost needless to say that the chief agencies which effect

the delivery of the child from the cavity of the womb are powerful uterine contractions, assisted in some degree by the diaphragm and abdominal muscles. It is by these that the expulsion of the child is effected, and anything that has a tendency to impair or paralyze these agencies or efforts of nature, has a corresponding tendency to prolong the period of labor.

No agent yet discovered possesses a more perfect and complete control over muscular action than chloroform. Blood-letting, opium, tobacco, and antimony, each powerful in effect, and, before the application of chloroform, the chief means of effecting muscular relaxation, are now regarded as comparatively feeble, and, in many cases, I fear, are wrongfully superceded by chloroform.

From an experience of several years in the use of chloroform in obstetrical practice, I am compelled to acknowledge that I have been entirely disappointed in the estimate that, from the representations of gentlemen of acknowledged worth and ability in the profession, I was at first led to place upon it. The most objectionable feature that is presented to my mind in the use of this agent in labor is, that it produces a weak and inefficient action of the uterus, and thereby paralyzes the most powerful and important agent concerned in the expulsion of the child.

Not only reason but experience proves this (but too clearly) to be the result of its action. For while we admit the effect of its power upon the muscular system generally, we are at the same time compelled to admit a similar action upon the muscles of the uterus, and whatever amount of muscular relaxation and debility may be induced by means of the agent employed, precisely in that ratio will the expulsive efforts of the uterus be rendered inefficient or null.

In a very large majority of cases in which I have used chloroform, the conviction of its tendency to greatly prolong the natural period of labor has been forced upon me, and in several instances where every circumstance seemed to indicate a speedy and easy termination of this natural process, in which I was persuaded by the patient or her friends to use chloroform, the expulsive efforts of the uterus were so enfeebled as to render that which, as I have remarked, at first gave every evidence of an easy and rapid termination, both a slow, tedious, and difficult process.

In face and breech presentations, where the life of the child is always endangered in proportion to the length of the labor, I would on no account advise the use of chloroform, and I think the same remark applicable to any other case of labor where a speedy termination from any cause is desirable.

Although I have been greatly disappointed in my expectations as to the value of chloroform in obstetrical practice, I would not be understood as condemning its use. That there are cases in which it is not only admissible but extremely useful I am perfectly willing to admit, and at the same time that I would censure a too general or exclusive resort to its use, I would not banish it altogether from the list of useful agents employed in obstetrical practice.

I am perfectly satisfied that in two cases which recently came under my observation, great benefit resulted from its employment. These were both cases of arm presentation, and in each the liquor amnii had been evacuated for several hours; there was perfect contraction, and complete rigidity of the os uteri, and after having used the ordinary means for the promotion of dilatation, without rendering the parts sufficiently lax to introduce my hand, I resorted to chloroform. As soon as the effect of the chloroform was sufficiently manifest I made an examination, and to my delight I found in each case complete relaxation of the previously rigid structures, introduced my hand without difficulty and was able to effect turning with great ease. Now, in cases of this description—although I admit they are rare—I think chloroform not only admirably adapted but imperatively called for. Indeed, in most cases of excessive uterine contraction, and in all in which rupture of the uterus is threatened, I should think chloroform was indicated unless there was some special constitutional objection to its use.

My experience with anæsthetic agents in operative midwifery is not very large, and so far as it goes has not inclined me to form a favorable opinion of their use. I do not know in how many cases requiring an operative procedure I have administered chloroform, but I am very positive that I have derived no benefit from its use in a single instance; and in some cases where the forceps were required, as well as in a few cases of craniotomy,

I am sure that it proved injurious by depriving the patient of consciousness, which all practitioners are aware is an indispensable safeguard.

It will be observed from the preceding remarks that the range which I concede to chloroform in midwifery is very limited. If I were called on to express in a single line the only circumstances in which my experience leads me to think anæsthetics either demanded or expedient in parturition, I should say *they are required only in powerful, or irregular, or excessive uterine action.* And if I add to this, spasmodic retraction and rigidity of the neck, nervous excitement and intellectual disturbance, I have included the whole catalogue of conditions in which I am now ever disposed to insist upon the induction of anæsthesia.

I claim to have awarded to this agent a fair and impartial trial in obstetric practice, and believe I am wholly free from any further prejudice against its use than has naturally and I hope logically grown out of a somewhat extensive experience in its application. No one would hail with greater pleasure than myself the discovery of an agent which, while it would annul the pains of childbirth, would neither prolong the process nor endanger the life of the patient. Chloroform, however, I am free to say, has not in my hands proved to be this agent, and I cannot but condemn the use which is now so generally made of this most potent and oftentimes hazardous remedy for the single purpose of allaying pains which, as every one knows, so seldom in themselves prove fatal.

I but repeat a truism when I remark that in the great majority of cases of natural labor, if the pains be regular, women are exposed to but little danger; and I belong to that school of practitioners who hold that the less manual or medicinal interference with a process which will terminate spontaneously and safely the better.

I am aware that my views upon this subject are neither the most general nor popular among parturient women, whose fears, it is well known, are easily excited, and who are ever ready to try any agent which promises even a temporary suspension of their sufferings. I am also aware that among females in this condition the obstetrician who promises the greatest immunity

from pain is most in request. But I do not wish to be considered as implying in the above remark any suspicion of the honesty or candor of those who differ with me in opinion.

To conclude the brief, and I feel very immethodical remarks I have presented to the Club, I wish to reiterate the following summary of my experience:

1st. Chloroform, administered in parturition, produces great muscular relaxation and thereby renders the expulsive efforts of the uterus feeble and inefficient.

2d. It causes partial if not total suspension of voluntary muscular effort, which tends greatly to prolong the natural period of labor, and thereby invites the attendant dangers of this condition.

3d. It is inadmissible in uterine hemorrhage.

4th. It is inadmissible in operative midwifery.

5th. It is inadmissible in all presentations in which the life of the child is endangered in proportion to the prolongation of the labor.

Dr. Gross inquired in what way and to what extent Dr. Knight gave chloroform?—to which he replied, he did not give it as surgeons do, to entire unconsciousness, but simply to blunt sensibility—to annul to some extent the pains. He had administered it in all stages of labor, before free dilatation of the os in some cases, though he had generally confined himself to the latter stages. The patients inhaled the choloroform either from a sponge or pocket handkerchief.

Dr. Hardin dissented from many of the views expressed by Dr. Knight; and while he was willing to admit that complete anæsthesia would perhaps retard and in some instances altogether arrest uterine action, yet he thought it was every day carried sufficiently far to afford great relief to parturient women without in any degree lengthening the period of their labors. Coinciding Dr. K.'s position, that anæsthetics weakened the force of the pains, he thought this more than compensated by the relaxation of the perineum which almost always followed their use. He had not seen a case of serious uterine hemorrhage in which chloroform was administered. He thought anæsthesia advisable in operative midwifery, and regarded it as almost a *sine qua non* in convulsions. He remembered a case that he was once called to see in

which convulsions, alternating with coma, had been present for twelve hours, which, under chloroform, was promptly relieved. When the chloroform was first exhibited the uterus had hardly begun to dilate, yet in about five hours the child was delivered. He could not avoid believing that without an anæsthetic this patient would have succumbed. He has not remarked any greater mortality among puerperal women in his practice since the introduction of chloroform than before, and he has delivered no still-born children.

Dr. Gross thought the action of the uterus was not weakened if the inhalation of chloroform was stopped short of full anæsthesia. He had been particularly pleased with the effect of chloroform in cases where there was great irritability of the uterus with frequent and inefficient and harassing pains. He had administered chloroform to women who, in previous confinements, had suffered from uterine hemorrhage, without the occurrence of any sanguineous losses. No still-born children had occurred in his practice as the result of anæsthesia of the mother.

Dr. Wible regarded the effect of anæsthetics as certainly retarding labor, and thought there could be but little doubt of their increasing the tendency to hemorrhage.

Dr. Caldwell is not in the habit of proposing chloroform to his patients, but gives it when it is asked for. He is confident he has several times seen labor completely suspended by its use. He has never known hemorrhage to follow its administration, and when the hemorrhage depends on irregular contractions so far from chloroform being contra-indicated he thought it specially indicated.

Dr. Bemiss said that he had not given chloroform in a very large number of midwifery cases. In one instance he is sure that labor was retarded by it.

Dr. Thomson is not in the habit of using chloroform for the production of full anæsthesia. He gives it cautiously for the mitigation of pain.

Dr. D. W. Yandell had administered chloroform in only nineteen cases. He had never known any unpleasant consequences from it, and agreed fully with the views expressed by Dr. Hardin.

Dr. Ewing seldom prescribes it, and thinks that whenever he

has used it to any great extent that the labors have been prolonged. No children were still-born in his practice.

Dr. Rogers had used chloroform repeatedly, though always for alleviation of the pains rather than with the view of totally destroying sensibility. It was no longer a question with him in regard to the influence that chloroform exerted upon uterine contractions. He was satisfied that it retarded them, and he would remark that this opinion was based upon a considerable number of carefully conducted experiments. He could refer to not a few instances of labor which were managed at one time with and at another time without chloroform, and he was sure that those were most tedious in which the anæsthetic was exhibited. He thought it disposed to flooding.

Dr. Thomson's report on the use of chloroform in surgery was deferred till the next meeting of the Club.

MELANOSIS AND SCIRRHUS.

Dr. Gross exhibited a jar of specimens of black and white cancer, which he removed from the body of a gentleman, aged fifty-eight, who died under his charge on the 22d of August. He had been in attendance for the last eight months on the patient, on account of carcinoma of the anus and rectum, attended with the development of numerous black tubercles beneath the skin. The disease was first noticed about twelve months previously to the death of the patient, who died in a state of gradual exhaustion. The prominent symptoms were pain and soreness of the anus, with occasional hemorrhage from the rectum, frequent diarrhœa, and progressive emaciation. The appetite was generally good, and there was no reason to believe, from anything present, that any of the other organs of the body were seriously affected, as was found to be the case on the dissection. During the early stage of the attack the bladder was very irritable, and the frequent use of anodyne suppositories was required to afford relief.

The dissection revealed the existence of black and white cancer in almost every organ of the body—in the skin and subcutaneous cellular substance, the lymphatic ganglions of the groin,

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NOTE.—It is the intention of Dr. Gross to give a detailed and circumstantial account of this extraordinary case in some future number of this Journal.

the stomach, small and large bowel, the liver and gall-bladder, pancreas, the omentum and peritoneum, the kidneys and supra-renal capsules, the bladder and prostate gland, the lymphatic ganglions of the abdomen, the lungs, pleura, heart, bronchial ganglions, and the thyroid gland. The brain was not inspected. The œsophagus, spleen and large vessels were free from disease. Thousands of tubercles, from the size of a pin's head to that of a split pea, existed in the subperitoneal cellular tissue. They were, for the most part, of a rounded shape, very hard, and of a blackish color at the periphery with a white central nucleus. The supra-renal capsules and the lymphatic ganglions of the abdomen consisted almost entirely of black matter. The former of these bodies was enormously enlarged. The heart presented numerous tubercles, of a light, slate color, and from the volume of a hempseed to that of a hazle-nut. They were most conspicuous in the right auricle and ventricle, especially the former. The bladder contained five small characteristic tumors, and the prostate gland was of a dense scirrhous consistence and charged with an abundance of black matter.

Dr. Gross then proceeded to exhibit an interesting example of

SCIRRHUS OF THE STOMACH.

The following is an abstract of the case:

W. L. S., aged forty-eight, a planter of Louisiana, the father of six children, and a man of temperate habits, was attacked with symptoms of dyspepsia in the summer of 1850, his health having up to that time been tolerably good, although rather delicate. Gradually nausea and vomiting ensued, attended with a sense of fullness and uneasiness in the epigastric region. The appetite was generally indifferent, and there was frequent annoyance from acidity of the stomach and eructations of gas. Occasionally there were griping pains, with now and then a pretty severe attack of colic. The bowels were generally inclined to constipation. There was gradual failure of strength, with progressive emaciation, and the countenance wore a sallow and dejected appearance. During the six months immediately preceding his dissolution, Mr. S. suffered almost constantly from nausea, and had frequent vomiting, consisting, for the most part, of thick, ropy, brownish mucus, mixed with ingesta. At first the vomiting seldom occurred

under two, three or four hours after eating; but latterly it often took place almost immediately, or, at all events, within in a very short time, after using food or drink. I saw the patient, for the first time, about the middle of August, along with Dr. Chenoweth. I found him very feeble, and much emaciated, with a dark, sallow countenance, almost constant nausea, and frequent vomiting. His appetite was gone, and the bowels were costive, and he complained of pain, of a dull, aching character, in the right hypochondriac and epigastric regions, which was increased by pressure and change of posture. But little was attempted in the way of treatment, it being apparent that the case must soon terminate fatally. He lingered on, becoming gradually more and more exhausted, till the 30th of August.

The only organ which was found to be diseased was the stomach, which was enormously distended, and nearly entirely closed at the pylorus. It contained, by estimate, upwards of half a gallon of fluid, of the appearance of weak coffee; the mucous coat was, throughout, unusually red and congested, and the muscular fibres were developed in an uncommon degree. The pylorus was the seat of scirrhous degeneration, involving its entire circumference, and encroaching so much upon the cavity of the tube as to leave an opening hardly large enough to receive the end of the little finger. The mucous membrane at and around the morbid mass was abnormally vascular and thickened, but not ulcerated.

Dr. Rogers mentioned a case of

NECROSIS OF THE FEMUR,

with the following history: The patient, a man, aged thirty, has had necrosis of the thigh-bone since his eighth year. It began without external injury, simply as the result of inflammation, and has discharged itself through six or seven sinuous outlets without intermission ever since. Twenty-two years after the disease set in a thin shell of bone, about two inches long, was detached from the femur and came away. A short time ago a second fragment was removed. The condition of the patient at this time is about as follows: General health good; pain of affected limb trifling; the knee-joint is nearly stiff, and the limb slightly curved, and considerably shortened—about a drachm of matter is discharged daily from the openings above the knee-joint.

ART. III.—A CASE OF ABSCESS OF THE UTERINE APPENDAGES IN THE NON-PUERPERAL STATE.

BY F. M. M'CABE, M. D., RESIDENT GRADUATE AT THE LOUISVILLE MARINE HOSPITAL.

THE annexed case is reported not because it is supposed to exhibit anything new, or even to illustrate, in a remarkable manner, the symptoms of non-puerperal abscess, but simply from a conviction of the liability of mistaking the disease for other more commonly recognized uterine lesions, with which it shows, to a great extent, the ordinary congeries of "uterine symptoms."

Bridget Grffin, aged thirty-three, a native of Ireland, was admitted to Louisville Marine Hospital Aug. 2, 1855, for supposed prolapsus uteri, of which affection her physician had assured her she was the subject. Her menstrual functions had been uniformly healthy up to the present attack. Within twelve months had had intermittent fever irregularly, from which, however, she had been entirely free for two months prior to entry. She was attacked on July 22d by chilly sensations, severe lumbar and hypogastric pains, a sensation of weight deeply seated in the pelvis upon attempting to walk, with much vesical irritation, as a consequence of protracted exposure to toil while washing clothes, being then on the eve of menstruation, which indeed ensued on the following day, but stopped abruptly after lasting less than twenty-four hours, (her menstrual period usually occupying three days and nights.) On the morning of the 23d she had a severe chill, followed by high febrile reaction, chills continued to recur at about the same hour for six successive days, but growing with each paroxysm progressively lighter, until after the sixth return, when they spontaneously ceased. At this time the lumbar and hypogastric pains were much lessened in intensity. On the tenth day from the attack the notice of the nurse was suddenly called to a profuse purulent discharge from the vagina, which amounted

perhaps to a quart. The patient was immediately placed upon a vessel and states that there was a further discharge of about a pint of bloody pus. A continuous but small discharge existed up to the time of her entry into the Hospital.

Condition at the time of Admission.—August 3d: No purulent discharge from vagina. On examination with the speculum a small perforation of the left vaginal wall is seen; uterus *in situ* and of healthy aspect. The finger introduced into the vagina encounters an indurated swelling encroaching upon the cul de sac of this canal; an indurated swelling surrounding the aperture. Patient complains of no pain. Pressure over the abdomen is accompanied by tenderness which is most marked over the left iliac region, where she expressed herself as having suffered most from pain in the beginning of her attack. The indications for medication not being very urgent I contented myself by directing fomentations to be applied to the abdomen.

August 5th: Patient has a chill; and on inquiry found that she had had one yesterday. August 6th: Ordered quinia grs. ij. every two hours till grs. xxv were taken, with but the effect of retarding the paroxysm several hours. August 7th: Quinia given to cinchonism. August 8th: Cinchonism; continued to escape chill till 13th, when it became necessary to resume the quinine, to which was now added FOWLER'S solution The general evidences of anemia being present the patient was also directed to use some of the ferruginous preparations. August 14th: Specular examination shows the point of ulceration to be granulating healthily. August 20th: Menstruous flow re-established, perfectly normal in character. August 25th: Patient left the Hospital cured.

Editorial Department.

THE SEASON AND ITS DISEASES.

The warm season of the present year has been in every respect unlike that of 1854, which will be long remembered for its intense heat and protracted drought. The current season has been as propitious as the past was unfavorable to the growth of vegetation. From March to September everything in the weather has conspired to bring forward all the productions of the earth in the greatest profusion. The spring was dry and warm; the rains in June and August were slightly above, but in July they were below the monthly mean, and the heat has at no time been excessive. The result of this benign weather has been a most luxuriant growth of every variety of fruits and esculents, so that it may be safely said a more bountiful year was never known in Kentucky.

Until towards the latter part of July no disease could be said to prevail in Louisville. The cases of dysentery were fewer in number and of a less violent character than they have been for many summers past. Cholera has been unknown except in an occasional case imported into the city, or if an indigenous case has now and then occurred it has been at long intervals and in a way to attract no attention. Cholera morbus prevailed to some extent in June and early in July, and cholera infantum has been more general than it has been observed in this city for many years.

About the beginning of August cases of intermittent fever began to be frequent, and in the suburbs of the city and in the surrounding country this complaint has been for more than a month past nearly universal. Quinine and febrifuge compounds have been in the greatest demand. We suppose that never before in

the same period were as large quantities of such medicines taken in Louisville. Concurrently with the chills and fever remittent fever has prevailed, but by no means extensively nor in a severe form. It is many years since as many people were indisposed in the city and its immediate neighborhood, but it is seldom that our bills of mortality for two months have been so small as have been those of the last two months.

We have remarked some interesting features in the prevailing fevers, the first of which is this mildness of the type. The remittent cases have been readily transformed into intermittents, and the intermittents have yielded promptly to the use of quinine. Relapses have been frequent, as they must always be when the subjects remain exposed to the action of the fever poison; but in such cases the preparations of iron have proved an effectual remedy.

We have been called to children in several instances in whom the chill was accompanied with convulsions. In one week we met with five cases of this character. The convulsions never recurred in any instance, and in all the cases but one the subsequent symptoms were mild and tractable.

In the case of a man south of Broadway, instead of chills the paroxysm was ushered in by an eruption resembling urticaria, which returned on alternate days about the same hour and receded after a few hours. He was cured by quinine, but after an interval of a week the eruption returned and required the renewed use of the fibrifuge. He has since suffered a second relapse, but this time the complaint assumed the usual form of chills and fever.

A few cases have been reported to us in which, after a number of paroxysms, the disease has terminated without treatment, but in a vast majority of the cases where medication has not been employed it has persisted, the sufferers becoming deeply anemic, with enlarged spleens, anasarca, and their usual attendants. Owing to the general prevalence of the disease among the poor, numerous opportunities have been offered for observing its tendency to a spontaneous cure. There seems to be in intermittent fever the slightest possible tendency of the sort.

The best results have been obtained in the cases of a remittent type from the constant, free application of cold water to the sur-

face. By keeping the clothes of the patient wet, the fever has been subdued in the course of a few hours, when quinine became admissible, and recovery was prompt.

September, up to the present date (19th), has been characterized by the temperature of summer, and the rains have been frequent and copious. Still, there is rather an abatement than an increase of these fevers, and the mortality of the city was never less in the healthiest seasons.

DR. M. L. KNAPP ON CHOLERA.

Dr. M. L. KNAPP has republished his essay, entitled "Discovery of the Cause, Nature, Cure, and Prevention of Cholera," which originally appeared in the New York Journal of Medicine, and has appended to it a considerable amount of new matter, some of which is in the shape of certificates testifying to the great merits of his paper. Altogether it forms a singular production. It purports to give the "*discovery*," not only of the cause, but of the cure and *prevention* of cholera. "If I have not explained everything pertaining to the subject," says the author, "I have given the *key* that *will explain everything;*" and he adds, "it is a consoling reflection that nations, cities and families can hereafter enjoy protection or immunity from the scourge, by simply conforming to the natural laws in regard to diet." And yet, in another place, he speaks of his "discovery" as a "*theory*." "Until, then, *my theory* is disproved, and shown to be fallacious by the substitution of a more rational one (a moral impossibility I trow), it must stand as the true explanation of Cholera, to the great joy of the profession, and all mankind!!" The notes of admiration are ours. We do not wonder that a writer who expresses himself after this fashion should seek to fortify himself by such certificates as are given on the cover his pamphlet, in one of which, by Dr. W. Byrd Powell, Ex-Professor of the Memphis Eclectic Medical School, assures him that he is "the first who has shed light on this, hitherto, mysterious subject;" and in another, the author, Anson Jones, M. D., "Ex-President of the Republic of Texas,"

after relating that he has been with cholera "in Philadelphia, with it in New York, with it in New Orleans, and has seen much of it in Texas," that he has "*traveled* and *camped* with it," adds, that he "was *always successful* in the treatment of the disease." The Ex-President avers that he says this "without the least vanity, professional or otherwise," and his truly marvelous success he ascribes to the fact that he "had some faint glimmerings of the truth which you (Dr. Knapp) have made clear as the sun at noonday."

Can Dr. Knapp hope to gain anything with the profession by certificates such as these, or are they meant for another class of readers? Does he expect any medical man to believe that any one—ex-president, or ex-king—has been always successful in the treatment of cholera? But not to dwell upon the endorsement of Dr. Knapp's "discovery" or "theory."

The theory assumes that cholera is scurvy. For proof of the theory he cites facts and quotations, to his mind so conclusive, that he is sure those who cannot see therefrom "the identity of cholera and scurvy, would not be likely to acknowledge it though their patients were to rise from the dead and assert it." Dr. K. must pardon us—we confess ourselves of the number who discredit his "discovery," despite his array of facts and quotations, and in extenuation of our incredulity we would plead the following facts:

1st. Cholera has once and again visited many portions of our country where the diet of the people is as anti-scorbutic as Dr. Knapp could possibly desire or devise. It has prevailed in the best districts of Kentucky, among a rural population as well fed as any to be found on the face of the earth.

2d. Scurvy is an affection almost unknown in the interior of our country. It is of so rare occurrence that when cases have been met with we have known well-informed physicians to mistake them for other diseases. But during the spring of the present year scurvy was prevalent in Louisville. The drought of the previous year had cut off vegetation; the potato crop, turnips, cabbages, and all such esculents had failed. A number of persons died of scurvy before the nature of the disease was suspected by the physicians in attendance. Many cases were treated at the

Marine Hospital, and many were met with in private practice. But with them no cases of cholera occurred. Warm weather came while scurvy was yet prevailing, but still there was no cholera. We have had drought, failure of crops, scarcity of provisions, almost total lack of succulent vegetables, and, concurrently with this, scurvy in abundance, but no cholera. The causes which have always heretofore engendered the scorbutic diathesis, have here developed scurvy among the poorer class of our population, but they have utterly failed to originate cholera.

We conceive that one instance like this is fatal to Dr. Knapp's theory. Indeed, it is to us amazing that a man of sound mind can so abandon himself to such a fancy; or rather we should say it would be amazing if instances of the kind did not abound in the history of medicine. We do not wish to treat the labors of Dr. K. with disrespect; on the contrary we would encourage inquiries on the momentous subject of which the pamphlet before us treats, but when an author assumes a style and manner that brings to memory the boasted discoveries of Paracelsus or Basil Valentine, when he parades his guesses before the world as demonstrated truths in medicine, "the great joy of the profession and all mankind," and backs his pretentions by the certificates of post-masters, and ex-presidents, and professors and ex-professors in Eclectic Medical Schools, we must say that he is putting human patience to a severe test.

We hope Dr. Knapp had no thought of making merchandise of his discovery by sending it abroad in its present dress, but it cannot be denied that it comes in a most "questionable shape." Certainly he could not have intended the following sentence for medical readers: "Sanitary regulations can now be instituted that shall meet its (cholera's) invasions at the very threshold—in ship, camp, or city, and the public mind be so indoctrinated by suitable publications on the subject, that every family may know in what constitutes its safety; in fine, the true philosophy so disseminated, that the way-faring man, though a fool, need not err therein."

ADIPOCIRE—ITS FORMATION.

Dr. CHARLES M. WITHERILL read last winter an able memoir on this subject before the American Philosophical Society, which has been published in the Society's Transactions. The author has performed a number of experiments tending to determine the manner in which adipocire is formed and the materials which go to constitute it. The general belief among chemists since this substance was first carefully examined by Fourcroy, has been that it is formed out of all animal substances except hair, nails and bones. Lord Bacon affirms in one of his works, that nearly all flesh may be turned into a fatty substance by cutting it into pieces and putting it into a glass covered with parchment, then letting the glass stand six or seven hours in boiling water. In 1786–7 the Cemetiere des Innocens, at Paris, having been opened for the removal of the bodies to another grave yard, Fourcroy had ample means of observing the circumstances under which adipocire is formed. He found an abundance of the substance, especially in the ditches, where the slightly made coffins of the poorer classes had been piled one upon another; the trench being open for some time till it was filled with bodies when it was slightly covered with earth. On opening the trenches after some fifteen years the bodies were converted into adipocire; they were flattened by mutual pressure and had impressions on their surface of the grave clothes. George Smith Gibbes, a few years afterwards, observed that in Oxford, in the pits where were thrown the remains of dissections, and at the bottom of which flowed a gentle current of water, large quantities of adipocire were formed; and placing a piece of beef in the river in a box pierced with holes, this substance also resulted. He states that nitric acid will effect the same change in a few days. Bostock seemed to prove by some experiments which he instituted, that muscular fibre could be converted into fat by the action of nitric acid. Chevreul, on repeating his experiments, could not obtain fat from pure fibrine; but Von Bibra, as the result of many experiments, concluded that muscle, under certain circumstances, is changed to fat, and Blondeau arrived at the same conclusion from an examination of

the cheese manufacture at Roquefort. The cheese when first made contained 1·200 of its weight of fat, but after two months in dark, cool, damp cellars, the caseine was almost wholly converted into fat. A piece of beef, after two months in the cellar, surrounded with paste and slightly salted, was found changed, for the greater part, into a fatty body, presenting the greatest analogy to hog's lard.

The question is an interesting one in a physiological point of view. Some experiments recently performed by Liebig, Bopp, Keller and others, rendered possible the formation of fat from albumen, fibrin and caseine. It is certain that herbivorous animals possess more fat than is taken in their food, but it has generally been conceded that the excess comes from the sugar and other non-nitrogenized compounds. In like manner where organs in the animal body have undergone the fatty degeneration, the oil is supposed to be derived from other parts of the system, rather than formed in the part by a metamorphosis of the nitrogenous compounds.

Dr. Witherill engaged in the study of adipocire with reference to this question. In his investigations he found that this substance seemed to be formed under opposite circumstances. In some graves it was discovered, and in others contiguous to them decomposition had advanced to its full extent, leaving nothing but the skeleton. The preservation of some bodies seems, indeed, inexplicable in the present state of our knowledge, as, for example, the case of General Washington, who, having reposed in his tomb for more than forty years, was so perfectly preserved as to have been recognized from the resemblance of his portraits. When Dr. Witherill engaged in the examination of adipocire he was inclined to the belief that it was a result of the blood-forming substances, but his experiments have brought him to a different conclusion, namely, that the higher members of the series of fatty acids do not result from the putrefaction of proteine compounds; and as corroborative of this view he mentions, that in all cases where adipocire has been found, the corpse was of a large and fat person. In grave-yards, he has remarked, if the proportion of flesh to fat be large, and especially if the nature of the ground be such as to prevent the escape of the decomposed matter, as by draining, no

adipocire is formed, but the fat undergoes full decomposition. The microscope sustains his experiments, inasmuch as it fails to trace any arrangement of the fatty particles into fibres or rows, such as would here and there be seen if the fat came from muscles. The original fat of the body, Dr. Witherill concludes, according to circumstances after burial, either partakes of a decomposition by which its elements escape, or else, losing its glycerine and most of its oleic acid, becomes gradually converted into adipocire. We do not suppose that his experiments settle the question, but to our mind they are nearly conclusive.

PROFFESSOR SMITH'S REPORTS.

PROF. J. LAWRENCE SMITH is making valuable contributions to American Science by his researches in mineralogy. His reëxamination of American minerals has corrected many false analyses, and given to the world precise and accurate information on the subject. We have before us a very able report on the "Minerals and Mineral Waters of Chili," collected by the United States Naval Astronomical Expedition, the result of his last winter's labors. To Chemists and Mineralogists the report will prove exceedingly interesting, and it must give Prof. SMITH a still higher reputation for learning, industry, and skill in those departments of science to which he is devoted. In regard to the ores brought from Chili, he says in this report, that they would lead one to believe that this country has hardly a parallel in any region of the globe for the abundance and purity of its silver and copper mines, and but for the physical difficulties connected with the surface of the country, and the scarcity of water and fuel, the wealth accruing to that government from this source would be immense. These difficulties will doubtless be overcome in time by the means which an improved art and more perfect science will supply, and these vast treasures will be made available to the world.

These labors of Prof. SMITH can never become popular. His tables of analysis will not be read, except by Chemists and Mineralogists. But they are conferring upon him an enduring name

among the men who are engaged in widening the boundaries of science. And the results of his labors are interesting to all. The world owes a great debt of gratitude to analytical chemists. Silently toiling away in their laboratories, they have removed the veil which rested upon the composition of matter around us, our food, water, the atmosphere, and the earth. They have given new efficiency to art and hightened and improved all the comforts of life. They have been the great benefactors of the race. It is to them that we owe the steam-engine and the magnetic telegraph, with whatever is most characteristic of our age of advancement and progress. Let us then do honor to the patient, laborious chemist, who is noiselessly extending our knowledge of nature, enlarging the domain of art, and multiplying and heightening our domestic comforts.

QUARANTINE AND YELLOW FEVER.

Our friend, Dr. Luke P. Blackburn, believed that he had succeeded in keeping yellow fever out of Natchez, two years ago, by quarantine. We had a conversation with him on the subject a few months since, and he was then fully persuaded of the practicability of limiting the spread of this pestilence. The latest intelligence from Natchez is to the effect that yellow fever is prevailing there. What is the matter? Has the vigilance of our friend not been equal to the task of excluding boats and travelers from the city? We are much interested in this matter and shall wait with impatience to learn the explanation of the origin of yellow fever in Natchez. We are sorry to learn that the disease is spreading to many of the towns along the Mississippi river. In Memphis some cases are reported to have originated, but there have been no indications of an epidemic in that place. Norfolk and Portsmouth, in Virginia, are the towns which have suffered most severely from the epidemic this season. It is gratifying to learn that it is at last subsiding in those places. In New Orleans it has not assumed this time its most malignant form and at the last dates was said to be declining. We fear that the experience of our times is not likely to reverse the decision long since passed upon the utility of quarantine regulations.

DR. OLIVER WENDELL HOLMES.

OUR citizens have just been favored with a visit by this eminent physician, scholar and poet. He came to Louisville at the invitation of the "Young Men's Christian Association" to deliver a series of lectures on the Modern Poets of England. We had the pleasure of listening to several of his lectures, which abounded in wit, humor, poetry, and fine philosophical analysis. When these lectures are published we have no hesitation in saying that they will add to the reputation of Dr. Holmes as a writer, high as he now deservedly ranks among the literary men of the day. The "magnetic stone of genius" has assuredly fallen at his feet, and whether he writes prose or verse the divine gift is at once seen and felt by his readers. The Association of young men who brought Dr. Holmes to the city is entitled to the thanks of the community. It gives us a better opinion of our country to listen to its eloquent orators and poets, and draws closer the bonds betwen the distant portions of it to bring its citizens together in the interchange of hospitality and friendly offices.

AT the late annual dinner of the Massachusetts Medical Society, held at Springfield, on the 27th of June, this eminent poet-physician made, in reply to a toast, the following well-timed remarks:

"We have need of every humanizing influence, of every form of culture, to lend grace and dignity to our position. We are assailed as we never were before. Journalists are running their setons through our necks, and keeping every sore spot open with their daily epispastics, sprinkled with the cantharides of their "machine-spread blistering plasters." Legislatures are debating whether to build costly hot-houses to force a growth of mushrooms—no, of toadstools—into existence among the roots of the bread-tree, which so many centuries have nourished with the life-blood of true-hearted and sound-minded men. The so-called 'Reformer,' whose incisors, like those of the rodentia, grow into his own flesh so soon as he finds nothing hard to gnaw upon, is mumbling at our unguarded extremities.

"And in the meantime, we must not disguise it from ourselves,

that causes are at work, within as from without, that may well occasion grave thought on the part of those who are anxious that the profession should maintain its high standing. Medical practice is breaking up into *specialities*—that make men skillful and narrow-minded. The Egyptians had their specialists for each organ, and the indications are unequivocal of a return towards the state of primitive Egyptian—culture. I do not say that it is not better for mankind that our art should be thus subdivided, but it is full of danger to the social and intellectual standing of the profession. It is now six years, I think, since, in a written introductory lecture, I distinctly pointed out to my class the course which medical practice was shaping for itself. Every succeeding year has confirmed what I then said. The path to *glory* (?) in medicine now leads through the—mucous membrane. Each of these slippery highways is invaded by its exclusive manipulator. One man passes his days in cauterizing throats and swabbing out bronchial passages. Another explores the narrow track from the fossa navicularis to the verumontanum, and there lives and moves and has his being. Another mainly studies science through the valves of a speculum. Another selects a still humbler sphere and holds divided empire with the ascaris!

"This subdivision of labor ends in most cases in the production of at least one cheap and perfect article, namely, a piece of human machinery capable of doing one thing well, and good for little else in many cases, stiffened, cramped, anchylosed in all the intellectual joints that give freedom and power to manhood. *Now there is nothing that can rescue the profession, engaged in such a track, from degradation to the rank of the mere mechanical arts, but a high standard of education and accomplishments.*

"There is something else besides the skillful hand, and the brain filled with the minute detail of some speciality, necessary to bring the physician into healthy and dignified relations with the intelligence of a wide-awake community like ours. We want men whom we can point out to the world and say: Look at them; and not men to place in a corner and say to our patients: Go, let them feel of you! Depend upon it, if our general culture does not, in some degree, keep pace with that of our enlightened clients, we shall become 'servants,' as old Wiseman used to call his own professional assistants; valets of the sick man, and fit companions for the flunkies that comb and brush him in health. And so, at last, the small specialist, pedicure or anicure, will do his small service, and be shown out the back door, as their predecessors, the Egyptian craftsmen, when they had performed their office of making the necessary incisions for the embalmer, were driven from the house with their fee in their pockets, and such convenient missiles flying about their heads as the friends could lay hands on.

"I have pointed out a danger, but not without suggesting a rem-

edy. In a word, to keep our profession what it has been, worthy of such an eulogy as Pope bestowed on it, fit calling for such men as Haller, as Arbuthnot, as Abercrombie, as our professional brother* now languishing in illness, which he charms at once with philosophy and song, we must give it every attraction which large aims and liberal culture can add to its inherent usefulness, so that we may call to it that noble class of minds out of which alone the time heroes of our divine science can be moulded."

He concluded his speech with the following beautiful poem:

As the mountain of New England,
In the far off Northern sky,
Looks down upon the river
That wanders murmuring by;
So from her cloud-capped turret,
Let solemn art look down
On fashion's lying whisper,
And folly's idle frown.

As the river of New England,
That is flowing at our side,
No rock can stay from running
To meet the salt sea-tide;
So roll our art's deep current,
By many a graceful shore,
Till life has reached the ocean
That pain shall vex no more!

As the bright star of evening
Plays on the mountain's crest,
Glancing from every streamlet
That sparkles on its breast;
So let the heavenly splendors
Of truth's white star be found,
Still shining fairest in us
While all is dark around!

Virginia Med. and Sur. Journal.

REMARKABLE QUANTITY OF WATER DISCHARGED BY PARACENTISIS.

The following has been communicated to us by Dr. George N. Holmes, of Owensboro, Ky.:—"Below you will see a number of operations, for abdominal dropsy, upon a Mrs. Miles, the last five by the writer. The lady is still alive, but has removed to Miss-

March 29, 1851, 88 pounds. *July* 25, 61 pounds. *Dec.* 9, 62 pounds.

May 1, 1852, 49 pounds. *Sept.* 11, 72 pounds.

May 17, 1853, 56 pounds. *August* 4, 47 pounds.

Feb. 3, 1854, 56 pounds.

The patient refused to be treated except by having paracentisis performed.

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* Elisha Bartlett, M. D., since deceased.

HISTORY OF THE AMERICAN MEDICAL ASSOCIATION.

DR. N. S. DAVIS wrote a series of articles for the *New Jersey Medical Reporter*, a year or two since, giving the history of the American Medical Association, in the origin of which it is known he took the deepest interest. These articles have been republished and now lie on our table in the shape of a neat octavo volume, embellished by handsome lithographic likenesses of the distinguished Author and the Presidents of the Association. The history will have interest for the readers of another generation; those of the present day must already be pretty familiar with the origin and labors of this learned body. We do not much fancy the practice of writing biographical sketches while the subjects of them are still alive, as happens to be the case in nearly every instance in the work before us. But we will not scan too critically the merits of a volume meant rather to gratify the friends of the gentlemen whose pictures adorn it than as a substantial contribution to our professional literature.

DEATH OF DR. MORETON STILLE.

IT is painful to record the death of a young physician so full of promise as was the subject of the following notice. The brother of this gifted young man is well known to the profession by his writings, and as Corresponding Secretary, for several years, of the American Medical Association. We take pleasure in transferring to our pages the obituary notice of Dr. Stillé in the Medical Examiner:

"OBITUARY.—Died, at Saratoga Springs, New York, on the 20th of August, Dr. Moreton Stillé, in the 33d year of his age.

"It is with sorrow that we announce the above melancholy event to our readers. Dr. Stillé's acquirements, manly character, unassuming deportment, and moral worth secured for him the respect and esteem of all who were acquainted with him. With most excellent natural abilities, he had a carefully cultivated mind, was master of several languages, and from advantages of study and travel, was both an accomplished scholar and physician. As a writer, besides occasional contributions to the American Journal of Medical Sciences, and to this Journal, Dr. Stillé was

author of a most valuable paper on the pathology of Cyanosis, written for his thesis for the degree of Doctor of Medicine, and honored by being published by athority of the Faculty of the University of Pennsylvania. It is unnecessary for us to comment on the merits of that paper, as it is well known to the profession, and secured for its author, both at home and abroad, a reputation rarely attained by one of his early age.

"For the last two years of his life, Dr. S. had been unintermittingly occupied in writing a work on Medical Jurisprudence, which we are happy to state is printed, and will shortly be published. Early in the present year he was appointed Lecturer upon the Theory and Practice of Medicine in the Philadelphia Association for Medical Instruction. A rare critical sagacity applied to the results of extensive research rendered his instructions both accurate and complete, and we are informed by his colleagues that they were highly esteemed by the class to whom they were imparted.

There is every reason to think that the confinement and sedentary life, resulting from his deep interest in and close application to his posthumous work, together with the new and onerous duties duties of his Lectureship, were of great injury to a constitution and frame physically unfitted for such untiring labor.

"By his many friends his memory will long be warmly cherished, and we cannot cease to regret the bright promise blighted by his untimely death, we

> "'Trust that those we call the dead
> Are breathers of an ampler day
> For ever nobler ends.'"

FLEMING'S SOUTHERN HYGIENIC JOURNAL; *Devoted exclusively to Human Health, edited by* NEWTON RANDOLPH FLEMING, M. D., *and published monthly at* $2 *per annum, in Atlanta, Georgia,*

Is the title of another candidate for public favor, and decidedly the most modest one that has come to our hands for many a day. The editor proposes striking "a blow for the physical regeneration of man," and also to make his journal "a newly risen star in the firmament of Science, whose mild beams shall cheer the million homes of America with the light of health and the hope of life." We sincerely trust that no one will be seriously hurt by Dr. Fleming's blow, and that astronomers will not be disturbed by the appearance of this new star in the Southern horizon.

D. W. Y.

THE CONDUCT OF THE WAR IN THE CRIMEA.

Mr. Roebuck and his Committee in their enquiries into the conduct of the war, overhaul medical as well as military delinquents. We clip the following specimen of the manner in which Mr. Roebuck handles witnesses from the New York Evening Post:

"Was to day at the Committee of Inquiry, Mr. Roebuck's committee. The proceedings are entirely pub.ic. To-day two of the Crimean medical officers were on the rack, and pretty disclosures they were forced to make, more to the edification of their hearers than to their own delight, for they proved themselves to have been guilty of the grossest negligence in their offices. One of them was the inspector-general or deputy inspector of the hospital at Scutari, whose duty it was to go about and see that everything connected with this department was in a proper state—and imagine this man saying that the hospitals were in a cleanly condition, and writing to Lord Stratford de Redcliffe that they had everything needful for the comfort and sustenance of the patients, at the very time that the hospitals were in the most disgusting and filthy condition, and men dying in them of mere exhaustion. The Committee pumped them both dry in a manner which was delightful. They both hemmed and hawed, and tried to get out of the mud the best way they could; but little Roebuck put it into them in a way they hadn't been accustomed to before, snubbing them at a most prodigious rate. 'Why can't you answer that question in a plain manner? Did you, or did you not?' 'No.' 'Well, then, say so at once.'"

THE BOSTON VETERINARY INSTITUTE.

It is now more than ten years since a Veterinary College was talked of by the Massachusetts Agricultural Society. As early as 1846 a young gentleman was sent under their auspices to study the Diseases of the Horse, at Alfort, near Paris. This young physician, whom we knew well, and who was endowed with a very high order of talents, prosecuted his studies to their completion and returned to the United States in 1848. It was announced soon after, that he would give a series of lectures on Veterinary Medicine in Boston, but before he had prepared the introductory to the course, he came to a sudden and melancholy end. The project of the school, however, was not entirely aban-

doned, and after the lapse of nearly seven years it appears under the name of the Boston Veterinary Institute. Concerning the ends and aims and prospects of the enterprise the *Boston Med. and Sur. Journal* makes the following remarks:

"The importance of an institution which should be able to disseminate sound instruction on the subject of veterinary medicine, and supply the community with a class of competent veterinary surgeons, will be at once acknowledged, when it is remembered to how great a degree we are dependent upon domesticated animals for our pleasure, our support, and our wealth. Like the human species they are subject to a great variety of maladies, which can only be efficiently controlled or relieved by a thorough acquaintance with their anatomy, physiology, pathology, and hygiene, and with the remedies best adapted to the cure of their diseases. The amount of ignorance which prevails, in this country at least, upon the subject, is very great, and yet it is but little appreciated, even by those who are most likely to suffer from it. The most valuable animals, when sick, are frequently confided to the care of horse-doctors and cattle-doctors, who are as ignorant of the principles of veterinary medicine as they are rash and unskillful in practice. With a few exceptions, this class of practitioners, with us, have had no regular education to qualify them for the exercise of a profession which requires in some respects more knowledge, as well as a higher sagacity, than is called for in the treatment of the human patient; for the physician is deprived of a most important source of information, both in the detection of symptoms, and in the effect of remedies, from the incapacity of the sufferer to describe his own sensations.

"Incompetent, as too many of our veterinary surgeons are, we believe that, even in its depressed condition among us, the profession yields a handsome return to those engaged in its practice, and there is no doubt that surgeons, properly qualified by a regular course of study at some institution of known reputation, would find a rich field for the exercise of their art in our community, where valuable animals are often sacrificed, either in consequence of the ignorance of the doctor, or from the skepticism of the owner, who in despair refuses all medical interference. The profession has hitherto been looked upon as rather beneath the notice of an educated and cultivated man, though upon what grounds we are at a loss to conceive. In order to become accomplished in it, one must spend years in patient study, in attendance on lectures and clinical instruction, and in dissection. He should be familiar, to some extent, at least, with all the different branches which are required for the ordinary practitioner of medicine and surgery; and an acquaintance with those departments of science which have no immediate bearing upon veterinary

medicine, will tend indirectly, by promoting habits of observation and investigation, to qualify him for the study and treatment of the maladies of the brute creation. In England and France there are several schools for instruction in this branch of knowledge, which offer every advantage that can be desired. That at Alfort, near Paris, has long been celebrated. It contains about 300 students, and the course of study, which extends through four years, embraces lectures on anatomy, chemistry, botany, materia medica, and pharmacy, veterinary surgery, with operations, and the practice of medicine as applied to animals. To use the forge is also taught.

"We are glad to see that there is a prospect that this subject will receive among us that attention which it has so long needed. In May last, an act of legislature was passed, incorporating the 'Boston Veterinary Institute,' the object of which is to afford ample instruction to persons desirous of qualifying themselves for the practice of veterinary medicine and surgery. The plan of instruction includes lectures on the Anatomy of Physiology of the Horse, on Theory and Practice of Veterinary Medicine and Surgery, and on Cattle Pathology. Students will also be allowed to attend the lectures on Chemistry and Pathological Anatomy in the medical department of Harvard University, and Clinical Lectures will be given by the Faculty.

"We hope that this effort in behalf of a noble and useful purpose, will meet with a corresponding encouragement from the community. Without assistance at this early period of its organization, the School will not be able to sustain itself. All who own horses or stock, should contribute something towards an enterprise which will be a benefit to them. It is hoped that the next legislature will make the Institution a handsome grant. When money is so freely lavished on botanic colleges and female medical schools, it surely ought not to be withheld from an object whose practical utility will, we presume, be questioned by no one."

SANITARY CONDITION OF LOUISVILLE.

The only diseases which have prevailed to any extent in Louisville during the summer are hooping cough and intermittent fever. The city has been almost wholly exempt from cholera, and not a case has come within our knowledge for weeks past. Bilious fever has presented itself in a few localities, principally in the suburbs of the city, where intermittent fever is prevalent, but the health of the city, at this time, may be pronounced excellent.

MEDICAL TOPOGRAPHY, EPIDEMICS OF THE UNITED STATES, ETC. — COMMITTEE OF THE AMERICAN MEDICAL ASSOCIATION.

AT the last annual meeting of the American Medical Association in Philadelphia, May, 1855, a committee was appointed, of one member from each State and Territory, and one from the Army and one from the Navy of the United States, to report upon the medical topography and the epidemic diseases of the United States, and the most successful treatment of the latter.

The following form of a circular has been agreed upon:

CIRCULAR.

The Committee of the American Medical Association "on Medical Topography, Epidemic Diseases, and most successful treatment thereof," address you this circular in their endeavor to get together materials for a medical history of the country. Please communicate to the address of the undersigned any and all information which may enable him to make a report, in which due credit will be given to each collaborator, and his name mentioned in connection with facts and histories furnished by him.

Please mention everything that has been printed or published about the medical history of your district, and topographical accounts of histories of particular epidemics, and say how far your own observations enables you to vouch for facts therein presented.

Geological and physical charts are very desirable, as well as descriptions of peculiar features of country or city.

Please mention *all epidemics* of which you may have any knowledge, being particular to assign limits of time and space as exactly as possible, giving, in connection with each disease, the peculiar features of the country, city, ward or street where it prevailed, with slope of rocks, character of soil, meteorological records and observations, altitude above the ocean or adjacent bodies of water, character of the water, artificial changes, as by cultivation, cutting down or planting of trees, sewerage, drainage, etc., etc.

Any supposed causes of disease, peculiar symptoms, post mortem appearances, prevention, therapeutical influences, and all details of age, sex, nativity, occupation, etc., of individuals, and of the duration and severity of disease at different periods, proportion of mortality, etc., should be given.

An early answer to this communication is desired.

[Those in Kentucky will please address Dr. W. L. SUTTON, Georgetown, Ky.]

PERKIN'S METALLIC TRACTORS.

Perkins and his Metallic Tractors excited at the close of the last century as much, if not more, attention than mesmerism and spiritualism have done in the latter half of the present; and found, we may add, advocates, and patrons, and believers, and dupes among the same classes:

> "Supported by a set of sturdymen,
> Dukes, quakers, doctors, lords and clergymen."

But Perkins was treated with far less consideration and civility by his professional associates than we find shown to the followers of Mesmer, Edmonds' spirits and the dealers in nostrums in the times that are.

The Medical Society of Connecticut, of which Dr. Perkins was a member, gave the following plain decision touching such abominations at their convention in Hartford, May 17, 1796:

"*Resolved*, Whereas Dr. Elisha Perkins, a member of this Society, having obtained a patent from under the authority of the United States, for the exclusive privilege of using and vending certain pointed metallic instruments, pretending that they were an invention of his own; and also that they possess inherent power of curing many diseases, which is contrary to the rules and regulations adopted by this Society, interdicting their members the the use of notrums: therefore *voted* that the *Elisha Perkins* be expelled."—*Amer. Med. Gaz.*

A righteous verdict.

CONTRIBUTIONS TO THE NATURAL HISTORY OF THE UNITED STATES.

Prof. Agassiz is publishing by subscription the results of his researches in the Natural History of the United States. These inquiries are profound and original, and the results cannot be otherwise than interesting to all liberal cultivators of medical science. We insert below so much of Prof. A.'s Circular as is necessary to explain the aim and scope of his proposed work, which, we are warranted in saying, will reflect honor upon the science of our country:

"From a careful estimate of the materials I have now on hand, I am satisfied I shall be able to include the most valuable part of my investigations in ten quarto volumes; each volume containing about three hundred pages, with at least twenty plates. I therefore now open a subscription for such a work, in ten volumes, quarto, in cloth binding, at the price of twelve dollars each vol., payable on delivery. Each volume shall be complete in itself,

containing one or several independent monographs; so that, if any unforseen difficulties should interrupt the publication of the whole, the parts already published shall not remain imperfect. As far as possible, I shall always select first such of my papers as contain the largest amount of new matter, or may contribute most directly to the advancement of science. Having devoted the greatest part of my time to the investigation of the embryonic growth of our animals, I shall make a beginning with the embryology of our turtles, several of which I have traced through all their changes. I trust this monograph will afford our medical students a fair opportunity of making themselves familiar with the modern results of one branch of physiology, which has the most direct bearing upon their science, and for which the different species of the family of turtles, found in every part of the United States, will afford them a bettor opportunity even than the artificial breeding of hen's eggs. Moreover, the extent of my embryological researches, covering, as they do, all the classes of the animal kingdom, will furnish, I trust, a new foundation for a better appreciation of the true affinities, and a more natural classification of animals. I forsee the possibility, upon this basis, of determining, with considerable precision, the relative rank of all the orders of every class of animals, and of furnishing a more reliable standard of comparison between the extinct types of past geological ages and the animals now living upon earth.

"It is a matter of course, that a work like this, illustrated by a large number of plates cannot be published without a liberal and extensive patronage. As it has been prepared solely with the view of throwing additional light upon the wonderful diversity of the animal creation of this continent, its structure, and its general relation to that of the other parts of the world, without the slightest hope of compensation for myself, I trust I may meet with the approbation of those conversant with the importance of the subject, and receive sufficient encouragement from the enlighted part of the community to enable me to bring to a successful close an undertaking upon which I enter now, and in this form, for no other purpose than to contribute my share towards increasing the love of nature among us.

"As the printing of this work cannot begin till a sufficient guarntee is secured for the publication of the whole, I take the liberty of making an appeal to the lovers of science to send to the publishers their own subscriptions, and such others as they may procure, as soon as convenient, and, if possible, before the first of August next, that I may be able to proceed at once with a work which, relating to animals peculiar to America, I wish to make, in every respect, an American contribution to science, fostered and supported by the patronage of the community at large.

"To render this work more generally accessible, it is intended

to publish at the rate of about one volume a year. Such an arrangement will bring the whole within the reach of every student of Natural History, and of every friend of the progress of science in the country. The periods of publication, however, cannot be more definitely fixed, because the required uniformity of execution of the plates, to which particular attention will be paid, will demand that they all be intrusted to the same artist who has drawn on stone most of the plates of my former works.

"*Cambridge*, May, 1855."

MICROSCOPES OF AMERICAN MANUFACTURE.

Physicians frequently apply to us for information respecting the best form of the microscope, and the place for obtaining them. We are happy to refer our readers to one of American manufacture, indorsed in the following terms by our friend, Professor Silliman, whose opinions on such a subject are of the highest authority:

"A few years since—only five or six—it was a thing impossible to obtain in the United States a microscope of any value of domestic manufacture. Thanks to the genius of Spencer and the Messrs. Grunow of New Haven, this is now quite possible. The merit of Mr. Spencer in this department of optical art, the clearness of definition, power of illumination, absence of color and breadth of angular aperture, in his higher powers, are well known, and have been long since acknowledge, even by his European competitors. In the New York crystal palace exhibition, the first prize for micrscopes was awarded to Mr. Spencer, the second to Messrs. Grunow. Since that time the latter makers have steadily advanced in the excellence of all parts of their instruments. Their form of stand for steadiness, ease of management, simplicity and economy, is unrivalled; and the movable stage with universal motion in one plane by one lever, improved and admirably executed by them, is now universally adopted in the best American instruments. Their brass work is perfect in all respects. One of the most experienced microscopists in the United States writes as follows of the optical value of their objectives: 'I have tried the $\frac{1}{8}$th objective, and it compared so well with my Spencer $\frac{1}{8}$th: that I consider them of equal vualue. I have also a $\frac{1}{4}$th inch objective made by them which works quite as well as the best English glasses. I need not tell you how much I rejoice that so worthy a man as Mr. Grunow has succeeded so well as an optician. His Student's Microscope I have been familiar with for some time. It is a source of congratulation that our students of medicine can now obtain the means of pursuing microscopic studies at a reasonable cost, and without the vexatious delays we have experienced in importing European instruments.'"

MISCELLANEA.

Deaths.—M. Valleix, the author of the *Guide du Médicin Practicien, a Traité des Névralgies*, etc., died at Paris of malignant sore-throat on the 12th of July last.—At Richmond, Va., on the 15th of July, of cardiac disease, Dr. R. L. Bohannan, Professor of Obstetrics in the Medical College of Virginia, aged 64 years.—At Saratoga Springs, on the 20th of August, Dr. Moreton Stillé, in the 33d year of his age. Dr. S. was lecturer on the Theory and Practice of Medicine in the *Philadelphia Association for Medical Instruction.*—James Conquest Cross, M. D., died in Maysville, Kentucky, September (instant,) 3d.—Dr. James C. Bliss, one of the oldest physicians in New York, died in that city July 31st.—The yellow fever in Virginia has not abated. The number of deaths in Norfolk average 48 daily, and in Portsmouth 20. Dr. Stone, of New Orleans, pronounces it to be of the same type as that which afflicted New Orleans in 1853.—The fever is on the decline in New Orleans.

Dr. N. D. Benedict, late Superintendent of the New York State Lunatic Asylum, is about establishing in Florida a *Sanitarium* for affections of the throat and lungs. It is situated at Magnolia on the St. Johns River, between St. Augustine and Jacksonville, about twenty miles from the coast.

Dr. John W. Paxton has opened in Knoxville, Tennessee, an Infirmary under the name of Hotel for Invalids.

Dr. W. J. Holt, a young American surgeon, engaged in the Russian service in the Crimea, is winning golden opinions from the Northern Bear by the manner in which he is treating his wounded soldiers—and the golden opinions of the Emperor are almost equal to the ready cash.

Dr. Beale has been denied a new trial by the Supreme Court. There having been some informality or error in the sentence of the lower court, it has been ordered to give its decision according to law.

MADISON, IA., Aug. 21, 1855.

The "Cut Direct."—At a meeting of the Madison Medical and

Chirurgical Society, held on Monday evening last, after the transaction of the usual business of the Society, it was—

Resolved, Whereas, Drs. J. Jackson and T. W. Forshee have behaved themselves in such an unprofessional, ungentlemanly and contemptible manner towards the profession in general, that their names be erased from the record of the Society, and they be debarred from all professional intercourse with the members of the Society.

This resolution was passed unanimously.

Three-fourths of medical men are said to die before the age of fifty, and ten elevenths before sixty.

Allen & Co., publishers of the American Medical Advertiser, have a list of 40,000 Doctors.

Solon Borland, M. D., known in political circles as a democrat, a know nothing, and an ex-senator, and who was for a short season minister plenipotentiary to Central America, and destroyer (by proxy) of Greytown, has been appointed Professor of Physiology and Pathology in the Memphis Medical College.

Professor Agassiz will open a school for young ladies at his house in Cambridge on the 26th of September.

Prof. E. M. Moore has resigned the chair of Surgery in the Starling Medical College, and Prof. Hamilton, who before occupied the chair of Materia Medica and Therapeutics, has been appointed in his stead. H. L. Thrall, M. D., of Columbus, succeeds Dr. Hamilton.—S. Loving, M. D., has been appointed Demonstrator of Anatomy in place of Dr. McMillen, resigned.

Dr. Bulkley has retired from the New York Medical Times.

There are thirty-eight periodicals now existing in this country devoted to the interests of medicine.

Messrs. Blanchard & Lea have in preparation for early publication an "Introduction to Practical Pharmcy," by Prof. Parrish, of the Academy of Medicine; a new Dissector, entitled "The Practical Anatomist," by Prof. J. M. Allen, M. D., of the Pennsylvania Medical College; an elaborate treatise on "The Principles and Practice of Physical Exploration," by Professor Austin Flint, of Louisville; and a work on "Human Histology," by Professor Peaslee, of Dartmouth. Among their reprints we learn that they now have ready Rokitansky's "Pathological Anatomy," complete in two large volumes; Mackenzie on the Eye, with Dr.

Hewson's Annotations, in a splendid octavo of 1000 pages; Hoblyn's "Medical Dictionary," thoroughly revised and enlarged by Dr. Hays; and Tanner's "Manual of Clinical Medicine."

The American Pharmaceutical Convention will hold its annual session in the city of New York on the second Tuesday in September. Wm. B. Chapman, of Philadeldhia, is President for 1855.

Massachusetts General Hospital.—Dr. Jacob Bigelow has resigned his position as physician to the Massachusetts General Hospital, which he has held for nineteen years. His vacated place has been filled by the election of Dr. Augustus A. Gould.

Boston Veterinary Institute.—This Institution, incorporated by the Legislature, will commence its session in November next; the course of instruction to continue for four months. Its object is to afford ample instruction in the practice of veterinary medicine and surgery.

Miami Medical College, Cincinnati.—Prof. J. Davis has been appointed in place of Prof. John Avery, resigned.

In Boston five hundred subscribers have already been obtained for Agassiz's "Contributions to the Natural History of the United States."

The Ohio State Medical Society, at a recent meeting at Zanesville, O., rescinded, by an almost unanimous vote, the resolution adopted at its last annual meeting, viz: "That it is not derogatory to medical dignity, or inconsistent with medical honor, for medical men to take out a patent for medical or surgical instruments."

Dr. Peter Parker, for 20 years medical missionary in China, has been recently appointed United States Commissioner to the Chinese Court.

M. Jules Cloquet has been elected to fill the vacancy in the Section of Medicine and Surgery in the Academy of Sciences, occasioned by the decease of M. Lallemand. He was elected by one vote over M. Jobert.

The London Times, Punch, and sundry other papers in Great Britain, positively refuse to publish quack advertisements.

Record of Medical Science.

Ozone in Epidemics.—[Translated from Revue de Thérapeutique Medico-Chirurgicale of May, 1855, for the New Orleans Med. and Sur. Journal, by Mrs. M. E. V.]

M. Wolf, director of the Observatory at Berne, announces in a letter addressed to the Academy of Sciences that, according to his personal observation, a rapid diminution of Ozone in the air is (if not always, at least usually) followed by a considerable augmentation of mortality.

What is Ozone? This is the question.

We answer with pleasure, for a new subject is in question, which is worthy attention under several aspects, and which recommends itself equally to the chemist, meteorologist, and physician. Henceforth the study of the variations of this new principle enters into daily meteorological observations under the same claim as that of temperature, atmospheric pressure, etc.

Ozone is nothing else than oxygen itself; this gas which enters for twenty-one centiémes (·21) in the composition of the air we breathe. But is oxygen so different from that to which chemists are accustomed to give that name, that they have a great deal of trouble to recognise it under its disguise.

For instance, oxygen is without scent, as every one knows; ozone on the contrary has a strong odor. It is by its scent, indeed, that its presence became known to observers; its name being taken from the Greek, reminds you of this property. Its odor oftentimes partakes of those of chlorine, of phosphorus, and of burning sulphur mixed with air. It manifests itself in the discharges attendant on the turning the plate of an electrical machine, or when there is a peal of thunder.

But the new and permanent qualities which oxygen acquires in becoming ozone are not confined to this; we know, for instance, that ordinary oxygen only combines slowly with mercury at the usual temperature; ozone, on the contrary, combines rapidly with this metal. In a word, the oxydizing qualities of Ozone are much more energetic than those of ordinary oxygen.

Van Marum was the first who found this remarkable substance.

It was in 1785; having at his disposal the great apparatus belonging to the Museum of Teyler, he excited sparks in a tube full of oxygen. A quarter of an hour afterwards, after 5,000 sparks, the oxygen had acquired a strong scent which he regarded as being very clearly that of electricity.

From 1785 to 1840, these remarkable experiments were completely lost sight of. In the course of the last year, M. de Schoenbein, Professor of Chemistry at Bale and inventor of the gun-cotton, decomposing water by means of an electrical battery, remarked that the production of hydrogen gas was accompanied by a very peculiar odor. He published a memoir on the subject. What was this new substance? Was it a simple element—was it an oxygenated product of azote or of hydrogen? The ingenious chemist left the question undecided, but he gave this odorous substance the name of *Ozone*.

In 1851, two *savants* of Geneva, MM. Marignac and De la Rive, concluded after a series of experiments that Ozone is nothing but oxygen in the peculiar state of chemical activity given to it by electricity. Berzelius and M. Faraday believed equally that there is here, an isomeric or allotropic state, that is to say, a simple modification of the oxygen. Finally in the same year, 1851, M. Schoenbein, who, on discussing this interesting question for the third time, agreed with MM. Marignac and La Rive.

Nevertheless, the majority of chemists admitted it hesitatingly. New experiments were necessary. Those made by MM. E. Frémy and Edmond Becquerel, in 1852, seemed to remove all doubts. They have shown, in confirmation of the experiments before mentioned, that electricity, acting on oxygen, developes new qualities in it; and these gentlemen have proposed changing the name of ozone into that of electrified oxygen (*Oxygéne électrisé*).

Ozone then is nothing but a peculiar form of oxygen. Thus we are shown the changes that simple and compound substances experience in their most essential qualities from the force of exterior circumstances. The changes in oxygen that electricity causes in this case are comparable, in fact, to those produced by the solar rays on chlorine, whose affinities become much more energetic, and to those which heat developes in sulphur, phosphorus and carbon, whose colors, consistence, solubility and affinities they modify, and in many compound metallic oxides, for instance, experience under its influence isomeric transformations. Thus, this collection of mysterious facts is of powerful interest and fully studied, will doubtlessly modify the classic ideas already much shaken as to the pretended number of simple substances which are thus found numerous by combination.

Once admit that by the agency of electric sparks oxygen can enter into a state of chemical activity, then we must ask, if this change which we produce in our laboratories, is not produced

spontaneously in the air; the more so as we cannot doubt that the atmosphere incessantly agitated by storms, experiences these chemical changes we speak of. This is a matter, however, of which one does not soon acquire a certainty.

Since 1850, M. Schoenbein has proved that Ozone decomposes the iodide of potassium, and he proved that a band of starched paper containing a small quantity of this salt, constitutes the most powerful, delicate reagent for discovering the presence of this new substance. A strip of paper prepared in this manner and exposed to the air, soon revealed, in changing from white, which was its original color before the experiment, to a blue of more or less intensity, the presence of ozone. That ozone then exists naturally in the air, is a point demonstrated; but does it always exist in the same proportions? The contrary is evident. Of what importance it is then, to study its variations? To do this it was necessary to bring back the observations to a common mode of comparison; nothing proved more easy.

Observers first arranged an ozonometric scale by dividing into a certain number of parts or degrees, the chromatic space comprised between the white which answers to the absence of ozone and the most intense blue that ozone can produce, at its maximum on ozonoscopic paper, putting on simple iodine. Ten was the number of visions adopted, and, this done, they possessed an *ozonoscope* by means of which they could measure the daily variations of the atmospheric ozone, as they could by means of the thermometer and barometer measure the daily changes of the temperature, and atmospheric pressure.

Several philosophers, knowing the importance of this new branch of meteorological observation, have pursued it. MM. Bœckel at Strasburg, Simonin, sen., at Nancy; Wolf, at Beane; Billiard, at Corbigny; Schapter and Besluber, in Germany; Gailliard, in America, etc., are among these observers.

So that here is a substance, whose existence was not suspected a few years ago, and one which acts on us and on all animated nature. How is it possible to doubt as to the intensity of its action? How can one doubt but that considerable variations in the oxydizing power of respirable gas have a powerful influence on respiration, and, in consequence, on all the vital functions?

An American physician, M. E. S. Gaillard, finds a connection between ozone in atmospheric air and the appearance of intermittent fevers.

According to Dr. Bœckel, malaria always shows itself with the zero of the Ozonoscope, and the same thing takes place when paludal fevers prevail.

According to M. Schoenbein, a considerable quantity of ozone was observed in the air of Berlin during the epidemic *Grippe* and during a medical constitution of the air predisposing to affections

of the chest; and the reverse took place under the prevalence of the gastric constitution.

According to the same observer, ozone was completely wanting in the atmosphere of the same city during a cholera epidemic.

According to Mr. Bœckel, the same thing occurred at Strasburg. The appearance of the cholera coincided with the absence of ozone, and the ozone reappeared as the cholera decreased.

M. Billiard regards the diminution of ozone as the first cause of this terrible malady.

Finally, without going so far, Mr. Wolf, in the letter which occasioned this article, confirms, as to the city of Berne in which he resides, the observations made at Strasburg by Dr. Bœckel.

It appears likely to us that ozone has not only great physiological parts to perform, but it is necessary to employ it in explaining several physical and chemical phenomena, such for instance, as the productions of nitric acid in the atmosphere, and the disengagement of the odor which so often accompanies thunder.

(*L'Ami des Sciences.*) Victor Meunier.

[Addendum, from the *Gaz. Hebdon. de Med.* of May 11, 1855.]

Ozone and Cholera.—Having procured the daily list of deaths from cholera at Aarau, in Switzerland, from the 15th of August to the 14th, of October, 1854, M. Wolf, director of the observatory at Berne, has classed the days in which no deaths occured—those in which there were one or two, and finally those in which there were three or more: "I have found," says he, "that the corresponding mean of the actions of ozone at Berne is—

For the days of	the first class	6. 48;
"	second class	5. 48;
"	third class	4. 58;

"I conclude from this," says M. Wolf, "that the cholera, to say the least, is very much favored by the diminution of ozone.—*L'Ami des Sciences.*

THERAPEUTIC RESEARCHES ON THE ACTION OF COD LIVER OIL, AND THE IODIDE AND BROMIDE OF POTASSIUM. Being an extract from a memoir read before the Imperial Academy of Medicine. By Dr. LUNIER, (Union Medicale.) Translated, with remarks by J. J. TWHEATT, M. D., Petersburgh, Va.

I do not intend, in this paper, to enter into an examination of all the diseases in which the cod liver oil, and iodide and bromide of potassium are employed; I shall only speak of the modus operandi of these therapeutic agents in those affections in which their action is most conspicuous, and at the same time, will expose the results of my own observations in those diseases in which these remedies have not heretofore been used. I shall examine successively:

1. Emaciation, constitutional and symptomatic.
2. Diseases of the Pancreas.
3. Obesity.
4. Phthisis.
5. Chlorosis.
6. Syphilitic and scrofulous affections.
7. Goitre and glandular engorgements, tumors.
8. Rickets.
9. Diabetes.
10. Coryza.
11. Amenorrhœa, dysmenorrhœa.
12. Diseases of the fœtus, children at the breast.

1. *Emaciation, Constitutional and Symptomatic.*—It is now well known that emaciation is not incompatible with the enjoyment of health, and therefore uncomplicated with any organic lesion; this condition is, however frequently symptomatic of some acute or chronic malady. The first condition I shall denominate constitutional, and may be the result of various causes, viz: 1st, absence and insufficiency of nutriment; 2nd, an extravagant expenditure of the nutritious elements, which already exist. In the first class may be included forced or voluntary abstinence; aliment of bad quality, and in some cases, the abuse of tobacco. I have stated in the first part of this memoir how, in cases of this nature, emaciation ensues; the oxygen not finding a sufficient quantity of combustible aliment in the blood, consumes the hydro-carbonaceous matters accumulated in the tissues, and emaciation is the necessary consequence.

With respect to emaciation which follows from an immoderate use of tobacco, it is only observed in persons in whom the salivary secretion is abundant; for it is to this secretion that we must ascribe the digestion of all amylaceous substances destined to serve as food for pulmonary combustion. Among the causes of the second class, I will mention great heat, laborious application, incessant fatigue, masturbation, spermorrhœa, deprivation of sleep,

progress of age. Here, it is not to the absence of food that emaciation is attributed; but to the increased activity of the functions of the economy.

Incessant application and constant fatigue require efforts which augment the quantity of oxygen absorbed by the lungs, and we have shown that the more oxygen absorbed by the lungs, the larger quantity of fatty matter is consumed by the economy, and consequently emaciation follows with great facility. Emissions, of whatever nature they may be, necessitate a process of reparation, in order to supply the waste which the organism has sustained; and that process of reparation is nothing more than combustion and oxydation of the fatty matter deposited in the cellular tissue; adding to this, the influence of the nervous system, which being deranged by emotions, and all kind of perturbations, cannot supply the digestive organs with that necessary energy for the normal play of their functions. May we not often ascribe this nervous debility, this deperdition of nervous influence, to the effects of prolonged fatigue, strong emotions, constant intellectual labor, and many other causes of the same character? If it were sufficient, in the cases I have enumerated, to suppress the cause of the disease, the task of the physician could be easily accomplished; but often this will not suffice to restore the equilibrium of the organic functions that have suffered the most. And here we find indications for the use of cod liver oil, or the mixture of bromide and iodide of potassium, associated with an analeptic regimen. The iodide and bromide of potassium by their action favor the transformation of the food into combustibles, and especially fatty matter.

There are few physicians in large cities who are not often consulted for cases of the above description. Ladies often demand some remedy to arrest the emaciation which is destroying their beauty and grace; it is in these cases that the chocolate of the bromide and iodide of potassium acts in a happy manner.

But, it must be remarked, that their action is slow, that their effects are scarcely perceived before the end of the first month, and it should be continued for two or three weeks after this period. We have observed that emaciation is often symtomatic of certain morbid affections, and especially of chronic diseases. Generally, in these cases, the treatment ought to be directed against the organic lesions, of which emaciation is only a manifestation; yet when the lesion is only suspected, the treatment of symptoms is only practicable, and hence, the bromo-iodine medication is applicable; but it is chiefly during convalescence that emaciation demands an especial treatment, as the following case will show.

During the year 1851, I was consulted in the case of a young girl, aged 7, who after an attack of variola and diphtheritis, was reduced to a state of great debility, and extreme emaciation which

for a long time caused much uneasiness to her parents; a minute examination failed to detect any organic derangement, and yet she emaciated daily, she could with difficulty walk, and large eschars formed on the sacrum, which was an additional cause of weakness; on the 8th of January, I prescribed the iodide and bromide mixture, in a table-spoonful of olive oil every morning; at the end of six weeks the patient was able to walk without much difficulty, and at the end of two months the case was cured.

2. *Diseases of the Pancreas.*—Among organic affections of which emaciation is of necessity a symptom, there are none in which it is more evident than in diseases of the pancreas. This peculiarity has been noticed by all those physicians who have made the diseases of this viscus a subject of study, and up to the present epoch this phenomenon had remained inexplicable. It is to the brilliant discoveries of M. Cl. Bernard that we are enabled to explain this apparent anomaly, and also other symptoms of the diseases of the pancreas. In the commencement of the diseases of this organ, there is rather an augmentation than diminution of the pancreatic secretion; it is, therefore, not at this period that emaciation is observed, but when the disease is chornic, and the organ does not perform its functions; in this condition the fatty substances become foreign bodies, and are expelled with the fœcal matters, in which they can be easily seen. Diarrhœa and constipation so common in the affections of the pancreas, can be explained by the discovery of Cl. Bernard. It is unnecessary for me to say that in such cases all fatty matter must be prohibited. The iodide and bromide preparations are here applicable; they can in some cases rouse the pancreas to action, but they should be used with caution.

3. *Obesity.*—I have already spoken in the first part of this memoir, of the causes, mode, and accumulation of fat in the cellular tissue, and the parenchymatous structure of organs. When the accumulation of fat becomes excessive, it is to be as much dreaded as the opposite condition, viz: extreme emaciation. A remedy to remove this condition is much to be desired, and up to this period, the means which have been employed have not produced the desired effects, and the economy has often suffered from the ineffectual attempts. If it were possible to act directly on the pancreas, and lessen the activity of its functions without any serious results, the object could be easily obtained; but unfortunately this cannot be; experience has taught me that in this respect opium has a diametrically opposite effect to the bromo-iodide preparations, and I believe that this agent diminishes the activity of the pancreatic secretion more than any other.

Those physicians who have employed the iodide of potassium in large doses, have known emaciation to follow. The pancreatic secretion is not the only one where this peculiarity is observed;

on keeping up an energetic and prolonged action, this function may not only be diminished, but completely suppressed; hence it is not surprising that Drs. Graefe and Bety should have suggested the idea of using iodine to combat polysarcia.

4. *Phthisis Pulmonalis*.—It is in phthisis that the cod liver oil has been used with the most success; but as this success has been called into question by some respectable practioners, I thought it worthy of interest to enter into an investigation and see if we cannot explain this apparent contradiction. I have already shown that the cod liver oil acts only by the fat and alkaline salts which facilitate its absorption and excite the pancreatic secretion; introduced in this way into the system, the fat serves as food to the lungs. This is I believe the whole secret of its action in consumption; and is the cause of its success and failure. The fat thus introduced into the system, arrests the progressive and rapid emaciation which accompanies this fatal disease. It must be also recollected, that combustion takes place at the same time in the lungs and general capillary system. Hence, it is easy to understand that when this process of combustion is rendered slower, in consequence of lesions of the lungs, it is more active in the capillary system, where is also produced a great quantity of carbonic acid and serosity, hence we find diarrhœa, and infiltration of the organs and cellular tissue, so often attendant in phthisis. From this slowness of combustion in the cells of the lungs, the arterial blood should contain a larger quantity of fatty matter; and may not the fatty condition of the livers of consumptive patients be ascribed to this condition of the blood?

We will now notice the failures which have alarmed some physicians; and we would ask, is it not one of the first principles of the art of cure to prescribe, in all acute affections, repose to the affected organ? The cod liver oil by its fatty matter increases the functions of the lungs; it will, therefore, be contra-indicated in phthisis, where there is acute action, or where the disease is disposed to run a rapid course.

It is not then *exclusively* as some physicians pretend that in such and such periods of consumption the cod liver oil is indicated; its action will be more effectual, more certain, when the disease progresses slowly, and free from fever. Observing this rule I prescribe this remedy less frequently than many practitioners, and I have rarely met with those accidents which doubtless resulted from an improper administration of this agent.

Permit me to say something about these agents which have been used in lieu of the cod liver oil. M. Marchel in 1844, and at a later period, M. Personne in 1850, attributed the therapeutic effects of cod liver oil to the iodine which it contains, and prepared to use in lieu of it, an oil in which the proportion of iodine should always be the same.

Mr. Marshel's preparation is as follows:

℞. Iodine, grs. $18\frac{43}{100}$;
Oil Sweet Almonds, Oct. j.

A gramme (about a half teaspoonful) of this mixture and a sufficient quantity of water to make an emulsion, to be used in place of the cod liver oil.

Mr. Marshel in recommending this oil, had only in view the introduction into the system of iodine, the oil being only a recipient. Though based on the same principle, the iodic oil of M. Personne fulfills two purposes, viz: the introduction of iodine, and also of fat into the system, and is given in the same doses. With regard to the iodide of starch of M. Quesneville, without entering into a discussion of its value, we will say that it cannot be substituted for the cod liver oil; moreover, (as has been remarked by MM. Derroult and Mialhe,) the use of this remedy may produce bad results. The iodine being set free by the conversion of the starch into sugar in the stomach, irritates the digestive organs before forming the alkaline iodide. The iodine and bromine of the cod liver oil have not only for effect to facilitate the digestion of fat, they impress upon all the organic functions an increased activity of function, which ultimately tends to aid the action of the hydro-carbonaceous matters; but, the cod liver oil is not the only agent containing iodine, which has been employed in consumption; it has been detected in Iceland moss, etc., and I have no doubt that the remarkable results which have been obtained by Amedie Latour in the use of common salt, in the treatment of phthisis, are owing to the iodine and bromine which it contains. Is it not in this manner we must explain the action of common salt in the fattening of cattle? and if success has not invariably resulted, we should attribute it to a deficiency of iodine and bromine. What has been said with regard to the action of sea salt, applies equally to the mineral waters; they have an action on the animal economy peculiarly their own, stimulating and regulating the organic functions, restoring vigor, re-establishing the secretions, and eliminating from the system foreign matters. I am persuaded that most of these waters owe in part, if not the whole of their efficacy, to the iodine and bromine which enter into their composition. Whatever formula you may employ in administering cod liver oil and its kindred preparations, I do not believe that the iodine acts directly on the pulmonary lesion; it assists nature, it rouses the organism to activity, which facilitates the cretaceous transformations of the tubercle, and the cicatrizations of caverns; in such cases to furnish to the economy the elements which are deficient, to prolong life, is accomplishing a great deal; but, it is doing more when it enables nature to finish the work of elimination and repair.

For fifteen years many distinguished practioners, particularly MM. Andral, Bricheteau, Depasquier, have employed the iodide of iron with success in phthisis. I have myself in some cases where chloro-anemic symptoms predominated, used the iodide of iron with favorable results. I think that the iodide neutralizes the sometimes prejudicial effects of the iron.

5. *Chlorosis.*—It is not alone in consumption with chloro-anemic symptoms, that the bromide and iodide of iron are indicated; there are certain forms of chlorosis accompanied with puffiness of the face, anorexia, emaciation, dysmenorrhœa, in which they ought to be preferred above all other ferruginous preparations. In cases of this description, even when other means have failed, this medication will restore the functions to their normal condition; a few weeks are sufficient to restore the appetite, destroy the pallor, increase the forces, and remove all the symptoms of chlorosis.

6. *Syphilis, Scrofula.*—Since the interesting labors of Drs. Wallace and Ricord, the iodide of potassium has been so commonly used in the tertiary forms of syphilis, that it will be useless for us to say anything on this therapeutic point; the bromide of potassium has likewise been used with success.

I can affirm that during my services at the hospital (Du Midi), that its action was far from being as prompt and certain as the iodide; we should not, however, abandon it. My experience warrants the assertion that more satisfactory results are obtained by a combination of the two remedies. With a few grains of the iodide and bromide, greater effects will be produced than four or five times the same quantity administered separately. The scrofulous affections bear too strong an analogy to the tertiary forms of syphilis for the preceding remarks not to be applicable. But what is the mode of action of the iodide of potassium in syphilis? Does it act as M. Dorvault pretends, by its fludifying and antiplastic properties? I would rather attribute its therapeutic effects to the increased activity of the capillary circulation and the secretions, which disembarrass the organism of the morbific elements that it contains, and at the same time the digestive functions are so modified as to be able to restore to the system what it has lost by the skin, the kidneys, and pulmonary surfaces. In certain cases of scrofula the bromo-iodides are not sufficient, and we are obliged to resort to cod liver oil, which I am in the habit of making more active by adding 5 parts of the iodide and bromide of potassium to 100 parts of cod liver oil. It should never be forgotten that cod liver oil is absorbed by the surfaces of old ulcers, blisters and the skin deprived of its epidermis, and that it acts almost as efficaciously as when administered in the usual manner. I suspected that it was thus introduced into the system by witnessing the beneficial effects of dressing old ulcers with the oil—a treatment

which I strongly recommend in all ulcers of a rebellious character, particularly those situated in the sacrum and trochanters. In patients long confined to bed, we should likewise attribute to the absorption of the oil the happy results obtained by M. David in the treatment of the diseases of the skin of a chronic character.

7. *Bronchocele, Glandular Engorgements.*—I believe that in the treatment of goitrous engorgements and tumors of various characters, the iodide and bromide of potassium act by increasing the activity of the secretions and capillary circulation. In engorgements of the cervical glands, I have found that the addition of iron to the bromo-iodine mixture acted well even when there were no symptoms of chlorosis.

8. *Rickets.*—After consumption rickets appears to be the disease in which cod liver oil has been more used and with more success. At the same time that Schenk and Fehr were experimenting in Germany, MM. Bretonneau, Bonnett, Guersant, and Trousseau, were obtaining wonderful results in France. The remedy now became popular, and there are now few practitioners who have not employed it in children as well as in adults. At first the results were ascribed to the phosphate of lime (phosphore) which the cod liver oil contained, but it is now well ascertained that cod liver oil rarely contains this agent. Moreover, MM. Bretonneau, Dubois, and Pophen have demonstrated that similar results can be obtained by other oils. It is not therefore to the action of iodine, or bromide, or phosphate of lime, that these effects are to be attributed, but simply to the fat of the oil. In order to facilitate the absorption of fat, it is well to associate the iodide and bromide of potassium. At first it is difficult to comprehend how the introduction of fat into the animal economy can modify so rapidly the nutrition of bones, and restore the functions to their normal standard. I believe with Soemmering, Heyne, and Heckeren, that rickets arises from a want of equilibrium between the elements deposited in the tissues and those taken up by the absorbents; the fat restores the equilibrium.

9. *Diabetes.*—MM. Combette and Martin Solen have employed, the first, the iodide of iron, the second, the iodide of potassium, in the treatment of diabetes. The mode of action of these medicines ought to have, it seems to me, destroyed all expectation of success; these preparations have for a constant effect increased action of the salivary glands; and is not the saliva the solvent of amylaceous substances? If, therefore, there be any therapeutic agent diametrically the opposite in its action to that of iodine, that agent should be preferred in the management of diabetes; that agent, for me, is opium. And here the theory is in accordance with facts, for the preparations of opium have been used thus far with more success than any other medicines.

10. *Coryza, Ozena.*—The bromo-iodine medication occasions almost constantly an irritation of the nasal mucous membrane, a

hypersecretion and frontal cephalalgia, in other words, a commencement of inflammation; it is not, therefore, empirically that we have used these preparations in the treatment of the above diseases; cauterization of the ulcer by the nitrate of silver, or the acid, assists greatly the action of these remedies.

11. *Amenorrhœa, Dysmenorrhœa.*—The preparations of iodine and bromine having the effect of augmenting the activity of the digestive functions and capillary circulations, and producing a uniform distribution of the nutritious elements of the blood throughout the animal economy, are naturally indicated in a majority of cases of amenorrhœa and dysmenorrhœa; they produce a healthy modification of the general system, and a determination of blood to the uterine organs; a few grains of aloes, and a few leeches to the internal surfaces of the labia majora will be good adjuvants. Since I have adopted this method of treatment I have found few refractory cases; and often obtained a prompt cure, when other methods of treatment have failed. My treatment is as follows: Every morning I prescribe for one or two months, of the following mixture:

℞. Iodide of potassium; Bromide of potassium, ana, gr. v.; Artemisia vulgaris; Distil. water of mint; or the antimisia, ana, ℥ss.; Fiat solut.

At certain periods, according to individual peculiarities, I prescribe nine pills of aloes, containing one grain in each pill, all to be taken in three days. On the fourth day I apply two to four leeches to the sacro-lumbar region. If there be any symptoms of anemia, I add iron to the prescription; in addition to its general effects, I believe that these medicines have a specific influence on the uterine functions.

12. *Pregnancy, Nursing.*—M. Coindet in his first memoir on the use of iodine, advises that it should not be employed in pregnant women, because it might determine hemorrhage. In spite of this wise recommendation, M. Delprayse thought proper to use it in malformation of the pelvis, with the view of retarding the development of the fœtus: in the cases reported by Dr. Delprayse in support of this opinion, the women were affected with rickets, for which iodine had been administered during the two last months of pregnancy. Should we not rather ascribe the happy results to an amelioration of the general health, rather than to the action of iodine? I beg leave to call attention to the fact that iodine and bromine, like all mineral substances, are found in all of the secretions, the milk as well as the saliva and urine;—these medicines, when administered to the mother, will act on the infant. I will not insist on the importance of this physiological fact and the indications which it furnishes. Many times have I prescribed for infants, and adults, too, the milk of the goat and jennet; these animals being fed on food containing the bromo-iodine salts.—*Virginia Med. and Sur. Jour.*

Diagnosis of Fibrinous Concretions in the Heart.—By Dr. B. W. Richardson.—In former papers, Dr. Richardson has endeavored to bring prominently forward the observations of some of the pathologists of the seventeenth and eighteenth centuries, who have regarded the formation of fibrinous concretions in the heart as a cause of death; and to combine with these observations such new information as modern science affords. It is now his object to speak of the diagnosis of fibrinous concretions in the heart. The formation of these concretions depends either on superfibrination of the blood, or on languidity of the circulation; and thus they are met with both in sthenic and asthenic conditions of the system. The general results are nearly the same in all cases; but the symptoms are modified in detail by the locality and size and mode of formation of the concretion. Where concretions are formed in the right side of the heart—their most usual situation—the general symptoms are those of arrest of the nutrition and general life of the body. The left side of the heart being imperfectly supplied, the arterial circulation is weakened; the pulse becomes small and intermittent; the surface, especially at the extremities, is cold; the veins are engorged; there is a great anxiety; the muscles become restless and powerless; the brain refuses to act; the mind wanders; the pupil dilates; and the acts of excretion are often performed unconsciously. A distressing and peculiar form of dyspnœa also presents itself; it occurs not because the respiration is checked, for the respiratory murmur is audible enough, but because no blood is passing into the lungs to be oxidized. Towards the close of this condition, emphysema of the lungs is very frequently present, and the physical signs of this lesion are a valuable corroboration of the presence of fibrinous concretions. The laborious character of the respiration depends on the deficiency in the supply of blood to the respiratory muscles and nervous centers. This description is applicable to cases in which death occurs in the course of forty-eight or seventy-two hours; but the symptoms are much varied by many causes. In some instances, death takes place almost instantaneously, in consequence of the sudden dislodgement of a previously formed concretion. In other instances, the concretion is not sufficient to entirely impede the circulation; here the symptoms are extended over several days, and exhaustion, and perhaps anasarca, present themselves. In a fourth class, the symptoms may extend over a long series of years, and at times may be in a great measure absent; death occurring at some time from their sudden re-appearance.

Fibrinous concretions on the left side of the heart are generally found in the ventricle, and at the root and arch of the aorta. When gradually laid down, they are denoted by certain sufficiently obvious symptoms:

1. There is an unusual tumultuous action of the heart; which Dr. Richardson believes to be a decided indication, in cases of suspected fibrinous concretion, that the deposit is taking place on the *left* side.
2. The lungs present, probably invariably, signs of congestion.
3. The dyspnœa is less distressing than in the cases formerly described.
4. The surface of the body has a dark congested aspect.
5. The body is cold, and not only restless, but convulsed.
6. There is a tendency to coma.
7. Cough is almost always present, accompanied with copious secretion, often tinged with blood, in the bronchial tubes.

When a favorable *point d'appui* is present, as in valvular disease, the concretion may seize on this, and suddenly arrest the circulation. In other cases, the concretion may undergo a gradual series of organic changes, and give rise to symptoms much resembling those of valvular obstruction—pulmonary lesions, dropsy, and in many cases hypertrophy. The symptoms of a concretion, whether in the right or in the left side, will be modified by the pre-existence of any organic lesion in the heart or vessels; as by feebleness at any one point of the walls of the heart; by valvular disease; and by dilatation of the heart or of the aorta.

Dr. Richardson has never been able to ascertain the presence of any physical sign absolutely diagnostic of fibrinous concretions. The wild tumultuous action of the heart, present when a concretion is formed in the left cavities, may be met with when there is no concretion. Very often, when the concretion is large, the only physical sign observed is, that the beat of the heart is weak and irregular, and its sound somewhat muffled. In other cases, where the concretion is small and hard, and firmly attached, a sound may be heard which cannot be, *per se*, distinguished from a valvular bruit. In forming the diagnosis of fibrinous concretion, the author trusts to the general outline and history of the symptoms; and with this view, in cases where concretion might be suspected, he inquires especially into the presence of hyperinosis of the blood, of any local inflammation, or of the absorption of a morbid poison; he also examines the general condition of the patient, and the state of the systemic circulation, and of the heart and lungs; and if in these he detects the special signs which he had already described, he regards concretions as being present. The author has derived most instruction from the diagnosis of fibrinous concretions in the estimation of prognosis, and in withholding useless or injurious plans of treatment. In croup especially, the operation of tracheotomy should depend on the determination of the question whether there was a concretion in the heart or not.—*Half Yearly Ab. Med. Sciences.*

Treatment of Vaginitis.—The *Union Medicale* of Jan. 18th, contains an interesting paper by MM. Bebquerel and Rodier, on the diff rent modes of treatment employed in vaginitis, founded on observations made at the Hospital of Lourcine, at Paris. Although no description is given of the disease, we presume that most of the cases were those of acute and chronic *gonorrhœa*, as the hospital is designed exclusively for the treatment of the venereal diseases of women. The following applications were employed for a considerable length of time upon a number of patients. 1. A concentrated solution of nitrate of silver. 2. A more diluted solution of the same (16 parts of the salt to 120 of water.) 3. The solid nitrate of silver. 4. Tincture of iodine. 5. An ointment composed of lard and alum. 6. A concentrated solution of tannin. 7. Benzia, employed internally, as well as locally. Of all these applications the writers consider the concentrated solution of tannin (equal parts, by weight, of tannin and distilled water), applied directly upon the inflamed mucous membrane of the vagina, to be the best, as being the least painful, and least offensive. Of 28 cases treated in this way, all were cured, the average time being from 20 to 27 days, and the number of applications from 7 to 8. The tincture of iodine was found to be an excellent application for chronic and acute vaginal leucorrhœa, not accompanied by an inflammatory condition of the mucous membrane; requiring between twelve and thirteen days, and four or five applications.—*Boston Med. and Surg. Jour.*

The Changes Produced in the Blood by the Administration of Cod Liver Oil and Cocoa-Nut Oil. By Dr. Theophilus Thompson, F. R. S., Physician to the Consumption Hospital at Brompton.

The author has found that during the administration of cod-liver oil to phthisical patients their blood grew richer in red corpuscles, and he refers to a previous observation of Dr. Franz Simon to the same effect. The use of almond-oil and of olive-oil was not followed by any remedial effort; but from cocoa-nut-oil, results were obtained almost as decided as from the oil of the liver of the cod, and the anthor believes it may turn out to be a useful substitute. The oil employed was a pure cocoa oleine, obtained by pressure from crude cocoa-nut-oil, as expressed in Ceylon and on the Malabar coast from the Copperah or dried cocoa-nut kernel, and refined by being treated with an alkali, and then repeatedly washed with distilled water. It burns with a faint blue flame, showing a comparatively small proportion of carbon, and is undrying. The analysis of the blood was conducted by Mr. Dugald Campbell. The whole quantity abstracted having been weighed, the coagu-

lum was drained on bibulous paper for four or five hours, weighed and divided into two portions. One portion was weighed, and then dried in a water-oven, to determine the water. The other was macerated in cold water until it became colorless, then moderately dried, and digested with ether and alcohol, to remove fat; and, finally, dried completely and weighed as fibrin. From the respective weights of the fibrin, and the dry clot, that of the corpuscles was calculated. The following were the results observed in seven different individuals affected with phthisis in different stages of advancement:

		Red Corpuscles.	Fibrin
First stage, before the use of cod-liver oil,	Female,	129·26	4·52
	Male,	116·53	13·57
First stage, after the use of cod-liver oil,	Female,	136·47	5·00
	Male,	141·53	4·70
Third stage, after the use of cod-liver oil,	Male,	138·47	2·23
Third stage, after the use of cocoa-nut oil,	Male	139·95	2·31
	Male	144·94	4·61

[*Virginia Med. and Surg. Jour.*

SYRUP OF GUAIAC.—M. Mouchon (*Bull. Gén. de Thérap.*,) gives several formulæ for preparations of guaiac resin. The base of these is a tincture made with one part of guaiac to four parts of alcohol (fifty-six per cent.) by displacement. To make the syrup of guaiac, half a pound of this tincture is mixed with a pound of syrup of gum arabic, and the alcohol distilled or evaporated off till the syrup weighs one pound.

Thus obtained, syrup of guaiac is very homogeneous, owing to the emulsionizing effect of the gum in suspending the resinous particles.

NEW HÆMOSTATIC AGENT.—M. Monsel, military pharmacien, (*Gaz. Med. de Paris, in Jour. de Chim. M.*) suggests the following solution as an efficient means of checking hæmorrhage:

℞ Tannic acid, ℈j,
Alum, (free from iron) ʒv,
Rose water, ʒxxv.

Dissolve. This solution also possesses a remarkable antiseptic power on the blood with which it comes in contact.

Aneurism of Thoracic Aorta.—1. That there are no peculiar or consistent signs belonging to aneurism, by which the sounds produced in the tumor can be distinguished from those of the heart.

2. That, as a general rule, the sounds of an aneurism are more and more similar to those of the heart according as the seat of disease approaches the origin of the aorta.

3. That the statement of Laennec, as to the singleness of the aneurismal sound, and that of Hope, who maintains the existence of unequivocal criteria, distinguishing the aneurismal from the cardiac sounds, cannot be admitted.

4. That murmur is frequently absent in aneurisms of the arch of the aorta and the innominata.

5. That the discovery of two centers of pulsation within the thorax, as indicated by impulse and by a single or by double sounds, is the simplest expressions of the physical diagnosis.

6. That an extremely weak, almost imperceptible, impulse may attend even a large aneuism of the aorta.

7. That the disease cannot always be detected by percussion.

8. That the double sounds are met with in the true as well as the false aneurisms of the aorta.

9. That the first aneurismal sound is not necessarily, as Hope teaches, a murmur.

10. That we cannot yet explain the presence or absence of murmur in many cases of aneurism.

11. That in certain cases the diagnosis of a communicating aneurism may be ventured on, especially where the signs as indicated by Mr. Thurnam have occurred within a short space of time; and with still more certainty if they have supervened upon some violent effort.

12. That the signs from compression of surrounding parts may be arranged according to their importance as follows:

a. Pressure on the trachea and bronchial tubes.

b. Compression and sometimes obliteration of blood-vessels.

c. Pressure on the œsophagus.

d. Pressure on the nerves.

13. That the amount of pressure varies within short periods of time.

14. That in consequence of a change in the direction of pressure, parts whose functions had been interrupted or injured may be perfectly relieved.

15. That these circumstances may assist in the diagnosis between cancerous aneurismal tumors.

16. That in certain cases of aneurismal pressure, the effects on the parts engaged has probably a double origin; on the one hand resulting from mechanical, and on the other from vital causes.

17. That aneurismal may often be distinguished from laryngeal stridor by observing the source and direction of the sound.

18. That a small aneurism, causing lateral compression of the trachea, will sooner produce stridor than a larger tumor, the pressure of which is more directly from before backward.

19. That a considerable narrowing of the tube has been produced, yet without stridor.

20. That a degree of the stridor from below may exist, even though the trachea be not compressed, if the tumor engages one of the primary divisions of the tube.

21. That in many cases inequality of vesicular murmur, unattended by signs or symptoms of pulmonary disease, is produced by the compression of one of the bronchial tubes.

22. That this diminution of the vesicular murmur is generally equable over the affected side, but may be confined to the upper portion of the lung.

23. That in certain cases absence of murmur during the first half of the respiratory effort may be observed.

24. That in addition we may enumerate, among the consequences of this pressure on one bronchial tube, the unequal expansion of the sides during respiration; the want of vocal vibration to the hand; and lastly, as Dr. Mayne has observed, the actual contraction of one side, similar to that produced after the absorption of an empyema.

25. That in these cases we may have stridor combined with alteration or loss of voice; lesion of voice without stridor; and, lastly, stridor without any change of voice.

26. That aphonia, strictly speaking, is rarely observed in aneurism; the voice may be variously altered [metaphonia], but is seldom wholly extinct.

27. That variation of the voice, within short periods of time, is often characteristic of aneurismal pressure.

28. That in the course of the disease, the signs of pressure on the arteries may disappear, and the pulse at the distal side of the tumor be fully restored.

29. That in certain cases permanent obliteration of arterial canals is produced, and in this way important organs, such as the brain and lungs, may suffer from the want of arterial supply.

30. That aneurismal dysphagia may occur without stridor or signs of compression of the arteries or veins.

31. That it may exist to a great degree, and yet the passage of a probang be effected without difficulty.

32. That it may be referred to different portions of the tube within spaces of time.

33. That in a case where there was evidence of the retreat of the aneurismal tumor from the front of the thorax, and in which great destruction of several vertebræ had taken place, the signs of compression were observed to reappear on the removal of mechanical support to the shoulders.

34. That the force of the aneurismal diastole cannot be taken as a measure of that of the heart.

35. That in certain cases in which two centers of pulsation are discoverable, the feebleness of the cardiac, as compared with the aneurismal impulse, greatly facilitates the diagnosis.

36. That the existence even of a large aneurism of the thoracic aorta seems to have little if any influence in producing hypertrophy of the heart.

37. That atrophy of the heart may co-exist with a large aneurism; and that the frequent absence of cardiac disease in aneurism facilitates the diagnosis of the latter disease, more especially where the pulsations of the aneurism are attended with murmur.

38. That of the general morbid conditions which accompany aneurism, tubercular phthisis is the most common.

39. That perforation of hollow organs may take place without the patient dying of hemorrhage.

40. That even in cases of external opening there may be many successive hemorrhages, or the blood may ooze out, or be discharged in a small continuous stream.

41. That when the aneurism opens into a free serous cavity, the first gush of blood is not necessarily fatal, nor even the second.

42. That where it opens into a serous cavity in which partial adhesions exist, death may be gradual.

43. That sudden death may occur in aneurism without any rupture of the sac.

44. That when the communication is formed between the sac and the vena cava, or the right auricle, the symptoms of venous congestion are produced.—*Stokes' Diseases of the Heart & Aorta.*

Aneurism of the Abdominal Aorta.—1. That aneurism of the abdominal aorta, especially when it arrives high up in the course of the vessel, may be attended with severe and peculiar neuralgic pains.

2. That in certain cases these pains are so characteristic as to enable us to diagnosticate the disease with probable accuracy.

3. That they may exist for a long period without any symptom of constitutional ailment.

4. That they cannot be attributed solely to erosion of the vertebræ.

5. That aneurism in the abdomen is less often connected with extensive arterial lesion than when it occurs in the thorax.

6. That the want of proportion between the intensity of the sufferings and the amount of constitutional disturbance is often an important source of diagnosis.

7. That although the occurrence of constitutional suffering is generally seen when the aneurism becomes diffused, yet that in some cases it seems to attend the earlier stages of the disease.

8. That fever is absent in the earlier stages.

9. That fever is rarely met with in any stage of abdominal aneurism. It is absent in the first stages before the aneurism becomes diffused; and when appearing after that change, it is of a low, irritative type.

10. That the pulsations in the disease are generally single, and that they are more certainly attended with bellows murmur than those which accompany thoracic aneurism.

11. That displacement of important organs may long precede the fatal rupture or the diffusion of the aneurism.

12. That the pulsations of the tumor are in most cases single, but that in a case where the aneurism was seated high up a double pulsation has been observed.

13. That abdominal aneurism may cause displacement of the heart to the right side.

14. That the murmur has been known to disappear in the erect position.

15. That true aneurism of the abdominal aorta is rarely met with.

16. That death may occur from the rupture of the original sac into the peritoneal or pleural cavity; by the aneurism becoming diffused (secondary false aneurism); or by simple exhaustion of the patient, without rupture of the sac.

17. That the patient often obtains relief by lying on his face: in one case all signs of the tumor disappeared on turning to the left side.

18. That sudden and fatal hemorrhage may proceed from the opening of the diffused aneurism into a serous sac.

19. That the diffusion of the aneurism is often indicated, not only by a remarkable change in the constitutional state, but by alterations of the physical phenomena of the sac and of the heart.

20. That great tenderness of the belly may be thus produced, and yet no peritoneal inflammation exist.

21. That local suffering may attend the occurrence of the effusion.

22. That the new deposites of blood may present a feeble diastolic pulsation and a soft and diffused bellows murmur; in some cases, however, they appear as non-pulsating masses, or receive a communicated stroke from the subjacent or contiguous artery.

23. That, as a general rule, we find the force of the heart, and that of the throbbings in the original sac, diminish when the aneurism becomes diffused. In one case, however, excitement, both of the heart and aneurism, preceded the accident.

24. That in cases where much blood has been effused, the sounds of the heart may become single, the original tumor less distinct, and the bellows murmur diminished.

25. That in these instances it appears probable that it is the systolic sound of the heart that is wanting.

26. That in a case where a copious effusion had occurred between the folds of the mesentery, two murmurs, differing in seat, tone, and quality were observed.

27. That all the solid viscera of the abdomen are liable to be displaced in the course of the disease.

28. That the violent neuralgic pains are not necessarily connected with absorption of the vertebræ; and that this lesion may be found without even paraoxysmal or constant pain.

29. That two forms of pains are often met with—one violent, neuralgic, and paroxysmal; the other more dull, deep-seated, and boring.

30. That the tumor formed by a non-diffused aneurism is immovable.

31. That the first development of a murmur low down in the abdomen should incline us against the diagnosis of aneurism.

32. That the abdominal tumors which most simulate aneurism are those whose consistence is semi-fluid.

33. That when these tumors are movable, the pulsation, and even the murmur, can be made to appear and disappear.

34. That while the progress of an aneurismal tumor is generally from above downwards, that of the solid tumors is more often from below upward.

35. That the first appearance of pulsation, at some point low down in the belly, indicates that it is communicated to rather than inherent in the tumor.

36. That there are three important conditions occasionally attendant upon solid tumors of the belly which we have never observed in aneurism. These are—

a. Collateral venous circulation, as shown by the enlargement of the epigastric veins.

b. The existence of ascitas.

c. The occurrence of friction sound and vibration ovor the tumor.

37. That in cases of permanent patency of aortic valves, a temporary increase of the pulsations of the abdominal aorta, probably induced by sympathetic irritation, has led to the erroneous diagnosis of abdominal aneurism.

38. That a tumor with fluid contents, such as an hepatic abscess, may have completely diastolic pulsation. Here the diagnosis will depend on the preceding and accompanying circumstances of the case.—*Ibid.*

Vesico-Vaginal Fistula, with laceration of the anterior lip of the Cervix Uteri, of nearly six years standing—cured in two weeks. By N. Bozeman, M. D. (Report read before the Sydenham Medical Society, of Montgomery, Ala.)

The subject of this case was very kindly sent to my Infirmary, for treatment, by Dr. W. J. Mitchell, of Tuskegee.

Delphia, (colored woman,) belonging to Dr. Robert Howard, of Macon county, was admitted on the 4th April, aged twenty-five; stout, well formed, and has the appearance of one enjoying good health; always menstruated regularly, etc. In August, 1849, she gave birth to her second and last child; has had no control over her urine since; was in labor nearly four days; delivery natural; child of medium size, strong and vigorous; did well, and is at present a large and healthy boy. Presentation was vertex, so far as can be ascertained. First labor, about a year before, lasted four days—the child was still-born, and of large size; delivery natural, recovery speedy, etc. In neither confinement was the patient attended by a physician.

Upon examination, I found the vagina to be very capacious—a circumstance of no little importance, as regards success, in any case, but especially is it so when the fistulous opening is found in close proximity to the cervix uteri. The injury sustained by the parts, seemed, at first view, to be very extensive; but upon further inspection, they presented a more favorable appearance. In the anterior lip of the cervix, was to be seen a deep cleft, presenting on either side, a considerable prominence; at its anterior extremity, was situated the fistula, oval in shape, and large enough to admit the index finger into the bladder. No effort seemed to have been made by nature to repair the cervical injury. In a case,* almost identical, which came under my observation last year, a spontaneous cure was found to be perfect—union seeming to have taken place by the first intention—only the line of cicatrization remained, showing very plainly the extent of the injury, and its relation to the fistulous opening.

This difference in the results of nature to repair injuries, presenting the same characters—influenced by the same causes, is of no practical importance in the present instance, yet it is a fact none the less interesting.

As to the operation, two modes of procedure very naturally suggested themselves: one was to close the fistula and afterward the cleft; the other was to complete the whole under one operation. The latter, though more difficult of execution, was the one I adopted, for the reason that the patient would not require to be confined so long.

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* New Orleans Medical and Surgical Journal. May No., 1854.

A reparation of the cervix I did not consider essential to the success of curing the fistula; still I determined to effect it, if possible, in view of the probable results of parturition, should it occur again. With such a deep fissure existing in the anterior lip of the cervix, it can very readily be perceived how much more liable this point would be to give way under powerful uterine contractions, attended by a reproduction of the fistula, and perhaps laceration of the uterus itself, with all their dreadful consequences, as dribbling of the urine, metritis, peritonitis, etc.

On the eighth day after admission, assisted by Dr. Clanton and Mr. Duncan, a medical student, I proceeded to operate. The method employed was that of Dr. J. Marion Sims, (who, be it to the honor of America, yea, of the world, has accomplished more in this hitherto difficult branch of the practice than any surgeon living.)

A detailed account of the different steps of the operation I shall purposely omit, as it would be tedious, and perhaps uninteresting; therefore, only a single feature of it will be presented—the application of the suture apparatus. From my description of the injury, it will now be seen that the clamps had to be applied with all the accuracy observed under ordinary circumstances to parts totally different in structure and function, with the view of obtaining, by a natural and common process, a natural and common result—union by the first intention.

The dense, strong and unyielding tissue of the cervix, had to be made to harmonize with the erectile, spongy and elastic tissue of the vagina. In lodging the wire sutures in their respective places, great care had to be taken that the needle was entered and brought out at a distance from the fistula and cleft, corresponding to the extent of elasticity or adaptation of the parts. If too far removed, there was danger of the edges becoming everted, and *vice versa*. In neither instance could coaptation be effected—a desideratum indispensable to success. The difficulties and perplexities of such a task, simple as its execution may appear, can scarcely be realized by one who has never attempted it. Having, then, thoroughly freshened and shapod the edges of the injured parts, the first suture was carried through the cervix in its lower third; the second was entered on a line a little exterior to the first—carried across the upper extremity of the fistula, and out at a corresponding point on the opposite side; the other two were entered in a similar manner at equal distances below. To the ends of the sutures, on the right side, a clamp was fixed and made to take its proper place, the upper end resting against the side of the cervix. The one on the opposite side was arranged in a similar manner, with the proximal ends of the sutures passing through it. Traction being now made upon these ends, the edges of both fistula and cleft were brought in direct opposition. In this relation they

were maintained by compressing a small shot on each suture close to the clamp; after which the sutures were cut off close to the shot, and the patient put to bed. The self-retaining catheter was next introduced into the bladder, and the operation then completed.

On the day following menstruation came on, and soon afterward I noticed a bloody state of the urine, and slight leakage of the bladder. This condition of things continued four or five days, or till the catamenia ceased, when all unfavorable indications disappeared, and the patient seemed to do well. That a small opening in the bladder existed during this period, to allow of leakage and commingling of the two fluids, there can be no doubt. The most remarkable thing about it is, that it should have closed after so long a time.

The explanation of the result, I think, is this: A small groove remained at the bottom of the cervical cleft, after the application of the clamps, thus admitting a portion of the catamenia to pass along to the upper extremity of the fistula when it entered the bladder. Owing to the peculiar situation of the opening, and its valve-like form, only a very slight leakage could take place, and this, I imagine, as a result of some effort or change of position on the part of the patient. The urine, then, having little or no tendency to escape here, and the edges of the opening being still in a freshened state, union of the parts followed immediately upon the cessation of the catamenial flow.

On the fifteenth day of the operation I removed the clamps, when union at all points seemed to be perfect. A small notch at the extremity of the anterior lip of the cervix was the only evidence of the deep cleft which had existed there. The patient was now allowed to get up. At first she could not retain her urine longer than two or three hours without experiencing some pain in the region of the bladder. This difficulty, however, gradually diminished as the organ regained its natural tone, which it did in a few days.—*Southern Medical and Southern Journal.*

Montgomery, May 10, 1855.

Belladonna in Hooping Cough.—Dr. Turnbull makes the following remarks on the use of belladonna in hooping cough, in the *Medical Examiner* for August, which will be read with interest at a time when this refractory affection is prevailing as an epidemic:

The following was the method followed: The system being prepared by reducing the inflammation by the means before spoken of, obtain, if possible, English extract of belladonna, fresh and

good; let the extract be triturated with water or simple syrup; if it is to be kept for some time, add a small quantity of alcohol. The dose for a child three months old is the sixteenth of a grain every three hours, to a child one year one eighth of a grain, and so to other ages in proportion.

Inform the parent or nurse of the change it will produce upon the eye, also that it may redden the skin. When full dilatation of the pupil is brought about, the medicine is to be intermitted till it has gone off again; the belladonna is to be administered in slightly increasing doses, so as to keep the child under its influence for several days or till the paroxyisms are checked, which will usually occur toward the sixth or eighth day of the second stage.

In the twenty cases cured by the use of the belladonna the cough and hoop returned in a few cases on exposure to cold or in disagreeable, windy weather; but by combining the extract with syrup of ipecacuanha a few doses soon checked the cough and hoop; in only one case out of this number was it complicated with inflammation of the lungs, and this case recovered.

The average duration of my twenty cases was ten days, after the hoop had commenced when the case was free from complications, which shows the great advantage of this treatment. The ordinary duration of the disease, when treated in the usual manner, is from 1½ to 3½ months; even by prussic acid, or the application of nitrate of silver, the average given is from two to three weeks. It is stated by Dr. Gibb that with the use of nitric acid, the average duration was only six or seven days. Several physicians who have used this remedy, however, do not find such favorable results from its use.

I have added to my communication some extracts from the experience of a few distinguished medical men on the use of this important agent, belladonna.

This remedy was used in hooping cough about the year 1783 by Dr. Buckhaave, of Copenhagen, who gave the powdered root in doses of two grains, morning and evening, to a child of five or six years of age. The cure, it is stated, was generally accomplished in from seven to fourteen days.*

Dr. Miquel, of Neuerhaus, says the belladonna is a remedy upon which he can always depend in this disease. In the course of many epidemics which he has observed during fifteen years, he has constantly cured the cough in eight days.†

Dr. Samuel Jackson, of this city, late of Northumberland, who, although he was not the first to employ the belladonna, yet by his valuable publication in 1834 brought its virtues prominently be-

* Dr. Duncan's Commentaries for 1793, and Dr. Gibb on Pertussis, p. 282. 1854.

† Vol. vii. American Journal of Medical Sciences, p. 524, from Archieves Generales, August, 1830.

fore the medical public, has continued its use for twenty years, and his confidence in its powers to arrest the paraoxysm and cure the second stage of hooping cough in the great majority of cases is undiminished.

Dr. Hiram Corson, formerly President of the Medical Society of the State of Pennsylvania, a distinguished practitioner of Montgomery county, Pa., in a paper on the efficacy of belladonna as a remedy in Pertussis, published in the American Journal of Medical Science, for October, 1852, makes the following observations: "My experience in pertussis had satisfied me that of all the remedies in common use, those recommended by writers upon diseases of children are almost useless. Children affected in the winter continued to cough and strangle and suffer for many weeks with scarcely a perceptible amendment. It was painful to visit and mortifying to prescribe for those afflicted with this malady."

He commenced the use of belladonna in four cases, and in one week they were all well. His method of using it was to begin with the sixteenth of a grain to children under one year every two hours, and increasing a little every day till full dilatation of the pupil occurred, the skin became flushed and vision confused; this he accomplished by dissolving eight grains of the extract in an ounce of water, nine drops of which contained the eighth of a grain.

In an epidemic in 1840 he used the belladonna in hundreds of cases with great relief in nearly all. By giving it in small doses at first, the fears of the patients were allayed. In 1747–8 he also prescribed it in numerous cases with much success. He concludes his paper in these words: "During the last seventeen years I have given the extract of belladonna to hundreds of patients from two months to fifty years of age, and am firmly convinced that it has a greater control over hooping cough than any other remedy in common use. That while, in a few cases, the system did not seem susceptible to its action in the doses I have prescribed, yet in nearly all the disease yielded quickly. It is a safe and efficient remedy for pertussis in children of any age."

Dr. Eberle, in his Treatise on the Diseases of Children, second edition, remarks "that the belladonna has been highly celebrated, and is without doubt, by far, the best article of the kind we possess. My own experience leads me to testify confidently on this point. I have prescribed it within the last six years, (1834.) in perhaps twenty cases, and in the majority of them with evident advantage." Prof. Borda, he remarks, was the first, he believed, who used it as a remedy, and his belief in its efficacy is almost unlimited.

Hufeland and Albert are almost equally decided in their praise of the virtues of this article.

The mortality from this disease in our city in 1850 was 114,

1852, 168; and for 1853, was 64. In 1853 in the district of Richmond it occurred as an epidemic. In severe cases Dr. Janvier used the belladonna with the best results. "It mitigates the paraoxysms better than any other sedative." *

Dr. Condie remarks in his work on diseases of children, that the narcotic from which the greatest amount of benefit is to be anticipated in this disease, is unquestionably the belladonna; it has been very extensively employed, and the evidence in its favor is strong and conclusive, (by Kahliss, Janin, Hufeland, Widemann, Raisin, Guibert, Albert, Shäfer, Laennec, Muller, Blache, Maunsell, and Lombard.)

He further remarks that he had given the belladonna a very fair trial, and has, in many cases, been pleased with the prompt and decided relief produced by it, while in other instances it appeared to exert no influence whatever.

I think that this last remark may be often accounted for by the bad character of the belladonna, which is even found in some of the drug stores of this city, for it is an uncertain preparation unless when procured by evaporation in vacuo, for some samples from some of the Parisian shops were found by Orfila to be quite inert.

Dr. Williams, of London, has used belladonna with great advantage in his practice. He gives it in quarter-grain doses to a child of two years, increasing the dose to double that quantity or more, where it fails to relieve. He remarks that these doses, in general, cause some dilatation of the pupil, and conceives that the radical agency of the drug depends on the same power to diminish irritability of the bronchial and laryngeal muscles which is here evinced with regard to the iris.†

Dr. G. A. Rees has found belladonna one of the most efficacious remedies in pertussis.‡

Dr. Waller cured two cases with the twelfth of a grain of extract three times a day; prussic acid and conium had failed in affording any permanent relief.§

Aberle assigns the highest place among narcotics to be belladonna in hooping cough.

Dr. Churchill says that this is perhaps the most influential narcotic and sedative we possess (in pertussis); it has been very extensively employed and the evidence in its favor is very strong.‖

Belladonna has been eminently useful in the epidemics of hooping cough which M. Debreyne has observed, but recourse should not be had to it till the inflammatory element has been overcome by leeches, emetics, etc.

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* Report Phila. County Med. Society, for 1853.
† Gibb on hooping cough, p. 284, from Medical Gazette, Feb. 1838.
‡ Diseases of Children, second edition, 1844.
§ Lancet, vol. i, 1845, p. 137.
‖ Elements of Materia Medica.

Dr. A. T. Thompson says: "I have ordered the extract of belladonna in doses of one-eighth of a grain to a child of eight years, and gradually increased the dose to a quarter of a grain. Its power over the cough is extraordinary." *

THE EXPERIENCE OF VARIOUS KINDS OF TREATMENT IN PNEUMONIA.—The author, after recapitulating the leading points of his former paper, considered,

1st. The question as to the influence of blood-letting in the treatment of pneumonia in regard to mortality. He denied that the normal mortality from that disease could be accurately given, showing, from a table he had collected, that it varied from 3 up to 31 per cent. out of some 7000 cases. He particularly alluded to age, sex, and complication as affecting mortality. At the extremes of life it was very fatal, but benignant at intermediate periods. It was more fatal among females; and complications of other diseases, chiefly phthisis and Bright's disease, greatly increased it. Thus a selection of favorable ages only, a diminution of the number of females, in the number of complicated cases, would generally diminish the mortality.

2d. The author then considered the treatment by blood-letting singly, instancing first two series of cases from Bouillaud, which he showed were not fairly selected according to age, sex, and complication. Also, two series of cases from Grisolle, in one-third of which only had blood-letting succeeded in curing the disease; in the remaining, it had failed, necessitating the conjunction of antimonials; lastly, he alluded to cases similarly treated by Dietel, of Vienna; the mean mortality from the blood-letting treatment was 16·5 per cent. Dr. Routh then considered the treatment by blood-letting, combined with tartar emetic, instancing the cases recorded by Dr. Hughes, of Guy's Hospital, and others occurring in the practice of Drs. Walsh, Peacock, and Taylor. These cases appeared to be in no way selected; indeed, as a rule, very unfavorable, the complicated cases amounting, in those of Dr. Hughes, to 51 per cent.; in the others, 53 per cent. He also alluded to some cases similarly treated by Grisolle. The mortality obtained by these gentlemen was—

	Simple Pneumonia. Per Cent.	All Cases. Per Cent.
Dr. Hughes	2·2	24
Drs. Taylor, Peacock, and Walsh	3·2	30
Grisolle	—	25·4
Mean	—	26

* London Journal of Medicine, April, 1850.

3d. He then alluded to the treatment by tartar emetic singly, instancing cases from Louis, and Grisolle, and Dietel, giving a mortality, out of 170 cases, of 18 per cent. These cases were remarkable as generally recovering with very little loss of strength; and in comparing this kind of treatment with that of tartar emetic and blood-letting, conjoined by blood-letting singly, the result proved that that by blood-letting and tartar emetic conjoined was the most fatal, because the most depressing.

4th. Dr. Routh then dwelt on the treatment by chloroform, selecting Varentrapp's cases as the best recorded; but even these were not fairly selected, because containing too small a number of females. The mortality he obtained was 4 per cent., or, including some other cases, which he ought not to have omitted, 11½ per cent. A large number of cases collected by Vacherer, Baumgartner, and Helbeing, (193) gave a mortality only of 4¼ per cent., but he could not speak as to their assertion, not having been able to find the original documents.

5th. The author then spoke of the results obtained by dietetic treatment only. These were of two classes, those obtained by homœopaths, (i. e., in those cases where they had been also diagnosed and investigated by legitimate practitioners), and those obtained by experiments directly made by legitimate practioners themselves. From Jessier's cases the mortality was 14 per cent.; from Dietel's experiments, out of 189 cases so treated, the mortality was 7·4 per cent.; Dr. Todd's treatment was also much less energetic. He discouraged blood-letting and tartar emetic, trusting chiefly to the liquor ammonia acetatis, and giving the patient support.

6th. Dr. Routh then proceeded to speak of the treatment which he recommended. The indications were, first, to diminish the general fever, especially the increased cutaneous and pulmonary respiration. The former was effected by the tincture of the root of the aconitum napellus, on the action of which, in small and poisonous doses, he dwelt at length, and especially in reference to its certainty of action and utility as compared with the ordinary tincture of the Pharmacopœia; the latter indication was effected by oleaceous inunctions, which cooled the skin very rapidly.

The second class of indications was to relieve the local symptoms, which was best effected by the employment of Junot's exhausting apparatus, which did all that blood-letting could do, but saved the patient's blood, and by dry cupping or counter-irritation largely, by turpentine, according to Dr. Todd's plan, or blisters followed by repeated dressings of cotton, so as to deprive the system of a large quantity of fluid ingredient. The last class of indications to be fulfilled was that which had reference to the support of the patient. He objected altogether to the 'diète absolue' of the French, recommending the ordinary middle diet of hospitals,

or beef-tea from the first, to obviate tendency to death by depression. He occasionally gave small doses of tartar emetic during the first days of the disease, to promote expectoration, and perhaps an alterative mercurial. Under this treatment, he had been generally very successful in pneumonia.

Dr. Webster remarked that more men died of pneumonia than women, the proportion being 13 of the former to 10 of the latter. It was usually fatal among children; but most fatal after the middle period of life, the greatest mortality occurring in persons between 50 and 60. He referred to the occasional termination of pneumonia in gangrene, and of its rarity in sane as compared with insane patients. Thus, in 3102 dissections of sane persons made in the Civil Hospital at Prague, 55 exhibited gangrene of lungs, or 1 in every 56 cases; whereas in 123 dissections of lunatics, lately published by him in the Psychological Journal, 17 cases exhibited gangrene of lungs, or nearly 1 in every 7 autopsies, which makes the ratio eight times greater among insane than ordinary patients. With respect to treatment, he observed that the experience of French, German, or Italian physicians could not be compared with that of physicians in our own country, as the constitutions of the people were different, and consequently the same kind of treatment not applicable. In this country, though bleeding could not be resorted to to the same extent as formerly, it might be still employed, according to circumstances, either locally or generally, followed by tartar emetic and the repeated application of blisters; mercury afterward, to the extent of slight salivation, was most serviceable.—*Dr. Routh—London Lancet.*

On Rheumatic Pericarditis. By Dr. Eutenberg, of Coblentz. —From experience collected by the author, the following conclusions are deduced. *First*, as to the symptomatology; most authors affirm that there is pain either confined to the region of the heart, or extending from the left side to the shoulder and the mesogastrium. Dr. Eutenberg found it in none of his cases; and he adds that Lænnec, Hope, and Bouillaud, have all remarked upon its occasional absence; hence he infers that it is a sign of complication with pleurisy or pneumonia. At a later period, when abundant exudation is poured forth, a heavy pain is experienced.

Severe feverish symptoms occur only in the very acute cases. Then the thirst is oppressive; but the power of drinking limited on account of the severe dyspnœa. The urine is mostly very red, with a sediment of phosphate of ammonia and uric acid. There are severe night sweats, especially about the head.

At the commencement there is a marked sense of oppression, which becomes worse with the increase of the exudation.

The position of the patient is characteristic, whether the pericarditis be acute or chronic. He avoids lying on the left side. The recumbent posture on the back, or, if there be pleurisy, the sitting posture are most convenient. There is generally cough, at first of catarrhal character. Sickness, as mentioned by Knox, Creysis, and Bouillaud, Dr. Eutenberg found only once in eight cases. The pulse is very quick, 140—200. The sounds of the heart are mostly clear and defined; but a peculiar fluttering movement accompanies the heart's beat, when the exudation is excessive, and interferes with its action. Hope remarked this in connection with carditis. The pulse is always small, but not intermitting. Respiration is hurried, but without remission. There is no sign of adhesion of the pericardium to the heart. The author found it twice in bodies where he could not diagnose it during life.

The author did not find Rokitansky's assertion confirmed, that in the neighborhood of an abscess of the heart, the muscular substance is infiltrated with pus, easily lacerated and discolored. The want of redness in the pericardium he found remarkable.

The treatment must depend upon the form of disease. In acute cases, attacking muscular subjects, a moderate venesection is recommended; but not its repetition, as Bouillaud has advised. In carditis no bleeding, and in endo-carditis very moderate abstraction of blood is recommended. The author makes chief mention among internal medicines of tartarized antimony, combined with sulphate of magnesia, or calomel in severe cases. Should the pulsations of the heart and shortness of breath be considerable, and combined with hurried pulse, Dr. Eutenberg gives Corros. Sub., gr. j, dissolved in Sp. Vin. Rectif., ʒiij. Three to five drops to be taken twice daily. Next to corrosive sublimate stand the preparations of gold, but they are less fit for acute cases. In chronic relapsing pericarditis the iodide of iron is recommended.—[*Pr. Ver. Ztz.*] *Half-Yearly Ab. Med. Sciences.*

A New Prognostic Sign in Jaundice. By Dr. Cathcart Lees, Physician to the Meath Hospital.—Many cases of jaundice have occurred, writes Dr. Lees, in which delirium, convulsions, and coma supervened, and proved rapidly fatal, although accurate examination failed to discover any mechanical obstacle to the passage of bile out of the system, the bile ducts being pervious and empty; so that this form of disease has been described as fatal jaundice from *suppressed secretion* of bile which means, that the jaundice in such cases depends on the retention in the blood of the elements of the bile, which in the healthy state is separated only, not formed at the liver, and which, when retained, acts on the nervous system nearly as a narcotic poison,—causing a condition of the system analogous to that occasioned by the suspension of the secretion of urine in cases of ischuria renalis, or in some

cases of albuminuria. Dr. Alison explains this by supposing that the retention in the blood of matter destined to excretion is much more hurtful to the living body than the *reabsorption* into the blood of matters which have been excreted at their appropriate organs, but not discharged from the system in their natural way, owing to some mechanical obstruction in either the biliary or urinary passages. In reference to this class of cases, Dr. Budd, in his work on "Diseases of the Liver," after detailing some observations recorded by Alison, Bright, Graves, and others, thus writes: "It does not seem possible to deduce from the cases that have been related any sure means of distinguishing jaundice that results from suppressed secretion, from jaundice produced by temporary closure of the ducts, except in the particular cases where the jaundice immediately follows a powerful emotion, or occurs in the course of purulent phlebitis; or in consequence of known poisoning; or where, as in the instances related by Dr. Griffin and Dr. Hanlon, it occurs with peculiar characters in several members of a family, or in several persons living together, in succession. In all these instances, knowledge of the cause of the disease, or of some peculiar circumstances under which it may have arisen, gives significance to symptoms that would otherwise be vague and ambiguous. In other instances, where our judgment must be formed from the symptoms merely, the diagnosis is much more difficult." Now, it has struck me that the examination of the urine might be of some use in forming not only our diagnosis, but also our prognosis, in these cases of jaundice, particularly as in none of the cases recorded by the writers I have mentioned is there any analysis given of this secretion. I have, therefore, had the urine in some cases of jaundice carefully examined by competent persons lately, and shall proceed to detail one case, and give the results of two others nearly similar, in all of which an important principle of the bile was detected in the urine.

Dr. Lees then relates a case of extreme jaundice from retention of bile, the retention being due to obstruction of the ducts by cancerous growths; and he refers to two other cases of an analogous character, in which, notwithstanding the saturation of the system with bile, there was a complete absence of any symptoms referable to the nervous system. In these cases *cholic acid* was found in the urine; and it is to the excretion of this principle in this way that Dr. Lees is disposed to refer the absence of nervous symptoms. So far, however, this is a mere assumption, and no cases are given to show that, where the nervous symptoms are present, there has been an absence of cholic acid in the urine. Unfortunately, also, the means of verifying the presence of cholic acid are complicated, and we may yet have to wait some time for the required evidence.—[*Dublin Quar. Jour. of Med.*] *Half-Yearly Abstract of Medical Sciences.*

UNIVERSITY OF NASHVILLE.

Medical Department.

The Fifth Annual Course of Lectures in this Institution will commence on Monday, the 29th of October next, and continue till the first of the ensuing March.

PAUL F EVE, M. D., *Principles and Practice of Surgery.*

JOHN M. WATSON, M. D., *Obstetrics and the Diseases of Women and Children*

W. K. BOWLING, M. D., *Theory and Practice of Medicine.*

A. H. BUCHANAN, M. D., *Surgical and Pathological Anatomy.*

C. K. WINSTON, M. D., *Materia Medica and Medical Jurisprudence.*

ROBERT M. PORTER, M. D., *General and Special Anatomy.*

J. BERRIEN LINDSLEY, M. D., *Chemistry and Pharmacy.*

THOMAS R. JENNINGS, M. D., *Institutes of Medicine and Clinical Medicine.*

WILLIAM T. BRIGGS, M. D., *Demonstrator of Anatomy.*

The Anatomical Rooms will be opened for students on the first Monday of October.

A full *Preliminary Course* of Lectures, free to all students, will be given by the Professors, commencing also on the first Monday of October.

A Clinique has been established in connection with the University, at which operations are performed, and cases prescribed for, and lectured upon, in presence of the Class.

Amount of Fees for Lectures in the University is $105. Matriculation Fee, (paid once only) $5. Practical Anatomy, $10. Graduation Fee, $25.

Good Boarding can be procured at about $3 per week.

Further information can be obtained by addressing.

J. BERRIEN LINDSLEY, Chancellor of the University.

NASHVILLE, TENN., July, 1855. (3m.)

SAINT LOUIS MEDICAL COLLEGE.

(Formerly Medical Department of the Saint Louis University.)

The lectures in this Institution will commence on the first day of November next and continue until the first of March.

A preliminary course at the College, as also clinical lectures at the Hospital and Dispensary, will be delivered, without extra charge, during the month of October.

M. L. LINTON, M. D., *Professor of the Principles and Practice of Medicine.*

A. LITTON, M. D., *Professor of Chemistry and Pharmacy.*

CHARLES A. POPE, M. D., *Professor of the Principles and Practice of Surgery, Clinical Surgery and Dean of the Faculty.*

M. M. PALLEN, M. D., *Professor of Obstetrics and the Diseases of Women and Children.*

R. S. HOLMES, M. D., *Professor of Physiology and Medical Jurisprudence.*

W. M. McPHEETERS, M. D., *Professor of Materia Medica and Therapeutics.*

CHARLES W. STEVENS, M. D., *Professor of General, Descriptive and Surgical Anatomy.*

J. B. JOHNSON, M. D., *Professor of Clinical Medicine and Pathological Anatomy.*

E. H. GREGORY, M. D., *Demonstrator of Anatomy.*

FEES.—Whole cost of Tickets $105; Matriculation Ticket $5; Dissecting Ticket $10; Graduation Fee $20;

Medical Students are admitted free of charge to the medical and surgical practice in the City Hospital, in the St. Louis Hospital, and the Marine Wards, during the lecture terms.

Students or others, desiring further information, can either address the Dean, and he will forward them a descriptive pamphlet, or on arriving in the city, call upon him at his office, South-West Corner of Tenth and Locust Streets.

CHARLES A. POPE, M. D., Dean.

CINCINNATI RETREAT FOR THE INSANE.

IN CHARGE OF

EDWARD MEAD, M. D.,

Editor of the American Psychological Journal, Lecturer on Insanity and Forensic Medicine, late Professor of Obstetrics, formerly of Materia Medica, &c.

This Institution is open for the reception of patients. It is a select establishment, presenting superior advantages. None but quiet patients are admited. The long experience of the superintendent as a practitioner and teacher, affords a guaranty of kindly care and the most successful treatment.

Terms made known on application to

DR. MEAD,

CINCINNATI, OHIO.

Pennsylvania College—Medical Department.

SESSION OF 1855--'56.

The regular Course of Lectures will commence on Monday, October 8th, and will be continued until the first of March.

FACULTY:

DAVID GILBERT, M. D., *Professor of Obstetrics and Diseases of Women and Children.*

ALFRED STILLE, M. D., *Professor of Theory and Practice of Medicine.*

JOHN NELL, M. D., *Professor of Surgery.*

J. M. ALLEN, M. D., *Professor of Special and Surgical Anatomy.*

JOHN J. REESE, M. D., *Professor of Medical Chemistry.*

JOHN B. BIDDLE, M. D., *Professor of Therapeutics and Materia Medica.*

FRANCIS G. SMITH, M. D., *Professor of Institutes of Medicine.*

JOSEPH SHIPPEN, M. D., *Demonstrator of Anatomy.*

Clinical Instruction will be given by Professors BIDDLE and NEILL at the *Philadelphia Hospital Blockley*, during the entire term of the session, in conjunction with other members of the Medical Board of the Hospital. The Students of Pennsylvania College—*both first-course and second-course*—will be furnished *gratuitously* with the ticket of the Philadelphia Hospital. Second-course Students have the option of receiving gratuitously the ticket to the Pennsylvania Hospital. A Clinic will also be held at the College, every Wednesday and Saturday morning throughout the session.

FEES:

For the entire Course of Lectures,	$105 00
Matriculation, (paid once only)	5 00
Graduation,	30 00

The Dissecting Rooms will be opened in September, under the direction of the Professor of Anatomy, and the Demonstrator.

Preliminary Lectures will be delivered during the fortnight preceding the opening of the session

JOHN J. REESE, M. D., Registrar,

No. 122 S. Ninth Street, Philadelphia.

AUGUST, 1855.

MEDICAL COLLEGE OF OHIO.

Session of 1855--'56.

The Thirty Sixth Annual Course of Lectures in this Institution will commence on the 15th day of October, and continue until the last day of February.

FACULTY:

THOMAS WOOD, M. D., *Professor of Anatomy.*

JOHN A. WARDER, M. D., *Professor of Chemistry and Toxicology.*

JAMES GRAHAM, M. D., *Professor of Materia Medica and Therapeutics.*

GEORGE C. BLACKMAN, M. D., *Professor of the Principles and Practice of Surgery and Clinical Surgery.*

JOHN H. TATE, M. D., *Professor of Physiology, Hygiene and Medical Jurisprudence.*

N. T. MARSHALL, M. D., *Professor of Obstetrics and Diseases of Women and Children.*

S. G. ARMOR, M. D., *Professor of Pathology and Practice of Medicine and Clinical Medicine.*

R. L. REA, M. D., *Demonstrator of Anatomy.*

FEE FOR THE WHOLE COURSE, $92: Matriculation (paid once only,) $5; Hospital, $5; Graduation, $25; Demonstrator's Ticket, $8; Board, $2,50 to $3 a week.

A Preliminary Course, free to all Students, will commence on the 1st of October, and continue until the commencement of the regular Session.

Clinical Instruction by the Professors of Clinical Medicine and Surgery, will be given daily at the Commercial Hospital.

A Medical and Surgical *Clinique*, has also been established in connection with the College, at which cases will be prescribed for, and operations performed in presence of the Class.

Students may rely upon an abundant and *prompt* supply of *material*.

Letters addressed to the Dean, or any member of the Faculty, will be promptly answered.

Students, on arriving in the city, can obtain further information by calling on the Dean or Janitor at the College, on 6th St., between Race and Vine.

S. G. ARMOR, M. D., Dean of the Faculty.

THOS. WOOD, M. D., Registrar.

SUMMER AND WINTER COURSE OF LECTURES
AT THE
NEW YORK MEDICAL COLLEGE.

(East Thirteenth Street, bet. Third and Fourth Avenues.)

HORACE GREEN, M. D., LL. D, *Emeritus Professor of Theory and Practice of Medicine, and Professor of Diseases of the Respiratory Organs.*

E. H. DAVIS, M. D., *Professor of Materia Medica and Therapeutics.*

B. FORDYCE BAKER, M. D., *Professor of Midwifery and Diseases of Women and Children.*

R. OGDEN DOREMUS, M. D., *Professor of Chemistry and Medical Jurisprudence.*

J. M. CARNOCHAN, M. D., *Professor of the Principles and Operations of Surgery, with Surgical Pathology.*

EDMUND R. PEASLEE, M. D., *Professor of Physiology and Pathology.*

EDWARD H. PARKER, M. D., *Professor of General, Descriptive, and Microscopic Anatomy.*

HENRY G. COX, M. D., *Professor of Theory and Practice of Medicine, and of Clinical Medicine.*

D. S. CONANT, M. D., *Demonstrator of Anatomy.*

The Summer Course of Lectures will commence on June 12, 1855, and will continue until Oct. 12, when the Winter Course will be resumed. The Summer Course will be entirely practical and clinical in its characters. Lectures will be delivered daily at the College or at the Hospital, by the following gentlemen:

On Therapeutics, by Prof. DAVIS.

On Puerperal Diseases, by Prof. BAKER.

On Practical Chemistry, by Prof. DOREMUS.

On the Surgical Operations of the Eye, by Prof. CARNOCHAN.

On the Microscope as applied to the Diagnosis of Diseases, by Prof. PARKER.

On Diseases of Children, by Prof. COX.

On Auscultation and Percussion, by J. HANCOCK DOUGLASS, M. D.,

On Medical Jurisprudence, by DAVID UHL, M. D.

Prof. CARNOCHAN, Surgeon-in-Chief, and Prof. COX, Physician-in-Chief, to the Emigrants' Hospital, which contains about 1500 beds, will visit the Hospital with the Students, and Clinical Lectures will be delivered there by them. Students of this College also can attend at the Bellevue Hospital, Blackwell's Island Hospitals, and the New York Hospital. At the College three Cliniques are held weekly—Surgical Clinique by Prof. CARNOCHAN, Medical Clinique by Prof. DAVIS and PARKER, and Clinique for Diseases of Women by Prof. BAKER. At the latter, every variety of Uterine diseases is exhibited to the class. Midwifery cases will be furnished to the Students to attend at the house of the patients.

The Class will be divided into sections to attend at the office of Prof. GREEN, where they will have an unequalled opportunity to witness the treatment of the Diseases of the Respiratory Organs.

It will thus be seen that unsurpassed clinical opportunities are afforded for Students of this College.

Physical Diagnosis as applied to both Medical and Surgical Diseases, will receive especialy attention during the Summer Course.

Students are especially urged to avail themselves of the gratuitous instruction in Chemical Analysis, which will commence three weeks in advance of the Winter Course; opportunities for this practical knowledge, it is believed, are not afforded in any other Institution.

Dissections will be commenced as early as practicable, and an abundant supply of material will be furnished at the lowest rates.

TERMS:

For Summer and Winter Courses, inclusive, - - - - - - - -	$105
For Winter Course alone, - - - - - - - - - - - - - - - -	105
For Summer Course alone, - - - - - - - - - - - - - - -	25

If Students attending the Summer course afterwards decide to attend the Winter Course, the $25 00 paid will be placed to their credit on taking out the tickets for the Winter Course. Matriculation Fee, $5 00.

Letters may be addressed to any member of the Faculty, or to

R. OGDEN DOREMUS, M. D., Dean of the Faculty.

New York Medical College, May 1, 1855.

UNIVERSITY OF NEW YORK.

Medical Department—Session 1855-56.

The lectures will commence on Monday, October 15th, and be continued until 1st of March following. The session of 1854-55 was attended by a class of 307 students, on 106 of whom the degree of Doctor of Medicine was conferred.

FACULTY OF MEDICINE.

REV. ISAAC FERRIS, D.D., LL. D., *Chancellor of the University.*

VALENTINE MOTT, M. D., LL. D., *Emeritus Professor of Surgery and Surgical Anatomy, and Ex-President of the Faculty.*

MARTYN PAYNE, M. D., LL. D., *Professor of Materia Medica and Therapeutics.*

GUNNING S. BEDFORD, M. D., *Professor of Obstetrics, the Diseases of Women and Children, and Clinical Midwifery.*

JOHN W. DRAPER, M. D., LL. D., *Professor of Chemistry and Physiology.*

ALFRED C. POST, M. D., *Professor of the Principles and Operations of Surgery, with Surgical and Pathological Anatomy.*

WILLIAM H. VAN BUREN, M. D., *Professor of General and Descriptive Anatomy.*

JOHN T. METCALFE, M. D., *Professor of the Institutes and Practice of Medicine.*

CHARLES E. ISAACS, M. D., *Demonstrator of Anatomy.*

GEORGE A. PETERS. M. D., *Prosector to the Professor of Surgery.*

ALEXANDER B. MOTT, M. D., *Prosector to the Emeritus Professor of Surgery.*

JOHN W. DRAPER, M. D., *President of the Faculty.*

COURSE OF INSTRUCTION.

The course of lectures given will be on anatomy—general, descriptive, surgical, and pathological; principles and operations of surgery; materia medica and therapeutics; institutes and practice of medicine; obstetrics, the diseases of women and children, with clinical midwifery; chemistry and physiology; clinical surgery; clinical medicine; clinical lectures on the diseases of the genito urinary organs; clinical lectures on the diseases of women and children; clinical lectures on physical diagnosis.

PRACTICAL ANATOMY.

The Legislature of New York having passed the Anatomical Bill, the students will be furnished with ample facilities for the study of this department.

CLINICAL INSTRUTION

Will be given at the New York Hospital, and Bellevue Hospital, and the various dispensaries of the City, including the Eye and Ear Infirmary, in which there are yearly more than 80,000 patients, will be open to the students free of charge. In addition there are held in the College Building, also free of chharge to the students of the University, five Cliniques each week, as follows:

1.—*An Obstetric Clinique, for the Diseases of Women and Children*, on every Monday, from 2½ to 4½ o'clock, P. M., by PROF. BEDFORD. Since the organization of this Clinique in October, 1855, there have been actually presented to the classes of the University, between *eight and nine thousand cases* of the most interesting diseases incident to Women and Children.

2.—*A Surgical Clinique*, every Tuesday, from 2½ to 4½ o'clock, P. M., by PROF. MOTT. This Clinique presents abundant opportunity for the study of Surgical Disease, and witnessing every variety of Surgical Operation.

3.—*A Medical Clinique*, every Wednesday, from 2½ to 3½ o'clock, P. M., by PROF. METCALF. Patients laboring under diseases of the lungs, heart, &c., are presented at this Clinique; and full opportunity is given to the students for the study of Physical Diagnosis, &c.

4.—*Surgical Clinique, with the diseases of the Genito-Urinary Organs*, every Wednesday, from 3½ to 4½ o'clock, P. M., by PROF. VAN BUREN. Besides its general surgical advantages, this Clinique presents ample opportunity for the study of Syphilitic Diseases, strictures, &c.

5.—*Surgical Clinique*, every Saturday, from 11 o'clock, A. M. to 1 o'clock, P. M., by PROF. POST. During the session just closed, besides various operations of importance, Prof. Post performed in this Clinique before his Class Lithotrity fifteen times and Lithotomy once, with entire success.

FEES FOR THE WINTER COURSE.

Full Course of Lectures,	$105
Matriculation Fee,	5
For Instruction by the Demonstrator,	5
Graduation Fee,	20

BOARDING.

Good Board can be obtained in the vicinity of the College at about $4 per week.

N. B. Students will please call, on their arrival at the College, No. 107 East 14th Street, and inquire for the Janitor, Mr. Polman, who will provide them with Boarding Houses.

Letters may be addressed to

PROF. DRAPER,

President of the Faculty, University, New York.

NEW YORK, APRIL 5, 1855.

MICROSCOPES

AND

OPTICAL AND PHYSICAL INSTRUMENTS,

MADE BY

J. & W. GRUNOW,

NEW HAVEN, CONN.

J. & W. GRUNOW respectfully invite the attention of Men of Science, Physicians, Engineers and others, to their establishment, where they are prepared to produce accurate and perfectly finished instruments in all departments of Physical and Chemical research, at short notice and on reasonable terms. They devote themselves especially to producing the best ACHROMATIC MICROSCOPES, (of all forms and powers, but especially of their own American Form,) to first class Surveying Instruments, Optical Instruments in general, and to Chemical and Philosophical Apparatus. All their instruments are made to order, but they have a sufficient stock in a state of advanced progress, to enable them to fill their orders with promptness.

J. & W. G. call the attention of Medical men particularly, and of Microscopists generally to their ACHROMATIC MICROSCOPES, for which they received a Prize at the New York Exhibition, in 1853.

The quality of their Object-Glasses is unsurpassed, unless by Mr. Spencer's best productions in the highest powers, (above the $\frac{1}{8}$th,) while the mechanical part of their stands is acknowledged to be of unequaled simplicity of construction, steadiness, excellence of workmanship, and beauty of finish.

They are confident that no Microscopes, either of foreign or

domestic manufacture, of equal perfection in all respects, are offered for sale, at prices so moderate as theirs.

J. & W. G., in order to meet the wants of Medical Students and of young microscopists generally, and also with a desire to respond to frequent inquiries and advice, have lately produced Object-Glasses of a *second quality*, which, however, are still superior to the best French Object-Glasses; the only difference between those of second quality and the very best ones, being mainly in a more limited angle of aperture. With these glasses they offer the

STUDENTS' Small MICROSCOPE,

with four powers, from 50 to 300 diameters, and if wanted with six powers, from 50 to 600 diameters, and capable of meeting all the wants of the Medical and Botanical Student. It has coarse and fine adjustments, may be inclined at any angle on its trunnion stand, and defines with great clearness all the common test-objects. This instrument has lately been supplied to the Board of Education in Massachusetts, for the use of the High Schools.

J. & W. G.'s best Student Microscope, which is somewhat larger than the above, has a movable stage of superior construction, and combines with simplicity of construction all the perfections and conveniences to the operator, which otherwise may only be found with the much more expensive English Microscopes.

J. & W. G. are also the sole makers of the

INVERTED MICROSCOPE,

invented by Prof. J. Lawrence Smith, of Louisville, Ky., and which, among numerous other orders, has been supplied to the U. S. Patent Office at Washington, and to the Neapolitan Government.

They also construct the

BINOCULAR MICROSCOPE,

invented by Prof. J. L. Riddell, New Orleans, by which the effect of the Stereoscope is given to the view of microscopic objects.

J. & W. G. are prepared to finish to order any Optical or Physical Instrument, required in Chemical, Philosophical, or Medical research; Glass Prisms ground to any form, and Achromatic Combinations, of any power or size, will also be made to order, in the most skillful manner, and at but a moderate advance from the European prices.

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J. & W. G. are kindly permitted to refer, for the quality of their Instruments and their other qualifications, to the following distinguished Men of Science, who have all personally used their Instruments:

To Dr. Alonzo Clark,
" Ch. R. Gilman,
" Willard Parker,
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John F. Frey, Esq., } *New York.*

Prof. James D. Dana,
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" W. A. Norton,
" Stiles French,
" B. Silliman, Jr., } *New Haven.*

Dr. H. Van Arsdale, *Morristown, N. J.*
" E. D. North, *Westfield, Mass.*
Prof. J. L. Riddell, M. D., } *New Orleans.*
" James Jones, M. D., }
" J. Lawrence Smith, M. D., *Louisville, Ky.*
" Charles Phillips, *University of N. C.*

NOTICE.

The following friendly notice of their establishment, J. & W. G. are permitted to copy from the *American Journal of Science and Arts*, July, 1855:

Microscopes of American Manufacture.—A few years since, only five or six, it was a thing impossible to obtain in the United States a microscope of any value of domestic manufacture. Thanks to the genius of Spencer and the Messrs. Grunow of New Haven, this is now quite possible. The merit of Mr. Spencer in this department of optical art, the clearness of definition, power of illumination, absence of color and breadth of angular aperture, in his higher powers, are well known, and have been long since acknowledged—even by his European competitors. In the New York Crystal Palace Exhibition, the first prize for Microscopes was awarded to Mr. Spencer, the second to Messrs. Grunow. Since that time the latter makers have steadily advanced in the excellence of all parts of their instruments. Their form of stand, for steadiness, ease of management, simplicity and economy, is unrivaled—and the movable stage with universal motion in one plane by one lever, improved and admirably executed by them, is now universally adopted in the best American instruments. Their brass work is perfect in all respects. One of the most experienced microscopists in the United States writes as follows, of the optical value of their objectives: "I have tried the $\frac{1}{4}$th objective, and it compared so well with my Spencer $\frac{1}{4}$th that I consider them of equal value. I have also a $\frac{1}{4}$th inch objective made by them which works quite as well as the best English glasses. I need not tell you how much I rejoice that so worthy a man as Mr. Grunow has succeeded so well as an optician. His Students' Microscope I have been familiar with for some time. It is a source of congratulation that our students of medicine can now obtain the means of pursuing microscopic studies at a reasonable cost, and without the vexatious delays we have experienced in importing European instruments."

The Inverted Microscope, invented by Dr. J. L. Smith, is built only by them and in a very superior style of workmanship. They also produce very perfect Geodesic and Surveying Instruments, and are prepared to undertake any instrument of research or illustration required in refined physics or chemistry. We take pleasure in calling the attention of scientific men generally to the establishment of Messrs. Grunow, as adding a new and valuable resource to their means of research.